

VISUAL IMPACT ASSESSMENT

LOWER STATE ROUTE 74
ORTEGA HIGHWAY WIDENING

September 2008
(Revisal of August 2008)

District 12-ORA-74
PM 10/1.9
EA: 086900

Caltrans District 12

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I. PURPOSE OF THE STUDY

The purpose of this study is to assess the visual impacts of the proposed Lower Ortega Highway Widening (the project), and to propose measures to minimize or mitigate any adverse visual impacts on the surrounding visual environment from the project. The lower portion of Ortega Highway (State Route 74 [SR-74]), at the project site, is located in the City of San Juan Capistrano, County of Orange, State of California; refer to Figure 1 (Regional Vicinity Map). The State of California Department of Transportation (Department) is the lead agency for compliance with the California Environmental Quality Act (CEQA).

II. PROJECT DESCRIPTION

A. Introduction

The Department proposes to widen SR-74 from two lanes to four lanes from Calle Entradero (Post mile [PM]1.0) to the City of San Juan Capistrano (City)/County of Orange (County) limits (eastern City limit) PM 1.9. The Department is the Lead Agency for the California Environmental Quality Act (CEQA) and the City is a Responsible Agency under CEQA. The total length of the project is approximately 0.9 mile; refer to Figures 2a and 2b (Project Location Map).

SR-74, also known as Ortega Highway, is a major east-west arterial in south Orange County extending from Interstate 5 (I-5) in the City of San Juan Capistrano (City) northeast to Riverside County where it intersects with Interstate 15 (I-15). SR-74 then extends further northeast towards the City of Palm Desert in Riverside County.

The existing SR-74 alignment consists of four through lanes from I-5, then goes into three through lanes and then at approximately 330 feet east of Via Cordova, it transitions to two through lanes. The alignment of the existing roadway imposes driving restrictions such as limited sight distance and difficulties in negotiating sharp curves.

Five roadways intersect with SR-74 from the south, within the project limits. They are: Calle Entradero, Via Cordova, Via Cristal, Via Errecarte, and Avenida Siega. North of SR-74, Via Cordova becomes Hunt Club Drive, and Avenida Siega becomes Shade Tree Lane, Via Cristal and Via Errecarte are Tee intersections. Additionally, to the north of SR-74, Strawberry Lane, Toyon Drive and Palm Hill Drive provide access to hillside private properties.

Sidewalks have been constructed partially through the project area. The north sidewalk currently terminates at Palm Hill Drive and the south sidewalk currently terminates just east of Avenida Siega.

B. Purpose and Need

Purpose

The purpose of the project is to accomplish the following specific objectives:

- Relieve existing and future traffic congestion and improve the flow of traffic on SR-74;

- Accommodate planned growth and development in the surrounding areas;
- Provide improvements consistent with local planning documents; and
- Gap closure.

The project is a proposed solution to the deficiency identified in the need statement below.

Need

As previously indicated in Section A, above, SR-74 serves as a key connection route, between Orange and Riverside Counties. The closest other roadways that provide this connection are SR-91, approximately 26 miles to the north, and SR-76, approximately 32 miles to the south. Both of these facilities are heavily traveled. As a result of the distance to alternative connectors, SR-74 experiences a consistent amount of regional traffic, despite the rural design of much of the roadway. In addition to serving this regional demand, the subject segment of SR-74 also serves as a primary access to the City. As a result of topography, SR-74 is one of the few arterial highways within the City that extends to the east much beyond I-5.

The need for this project is based on an assessment of the existing and future transportation demand, and current and predicted future traffic on SR-74 as measured by level of service (LOS). LOS is based on the ratio of traffic volume to the design capacity of the facility. It is expressed as a range from LOS A (free traffic flow with low volumes and high speeds resulting in low densities) to LOS F (traffic volumes exceed capacity and result in forced flow operations at low speeds resulting in high densities).

C. Project Description

This section describes the Proposed Action and the design alternatives that were developed to achieve the project purpose and need while avoiding or minimizing environmental impacts. The proposed project would widen SR-74 by adding one through lane in each direction, east and west bound from Calle Entradero to the City/County line. This Visual Impact Assessment (VIA) has evaluated the two Build Alternatives, Alternative 1, Northside widening, eliminating existing sidewalk, north of SR-74; Alternative 2, Northside widening, a straight sidewalk replacement, north of SR-74; and the No-Build Alternative in this environmental document.

The following project features are common design elements for both of the Build Alternatives:

Currently, there are two 12-foot general purpose lanes in each direction and no median throughout the project area. Both Build Alternatives would widen SR-74, primarily on the north side, to minimize removal of mature trees and to avoid removal of the existing sidewalk on the south side of SR-74. These alternatives would result in the roadbed changing from the current varying width of 62.3 feet at Calle Entradero and 24.6 feet at the City/County Line to a width varying from 78 to 79 feet, including lanes, shoulders, and median. Both Build Alternatives would provide one additional 12-foot wide general purpose lane in each direction as well as a 12-foot wide painted median. A paved 5-foot wide shoulder would be provided on each side of the roadway to accommodate Class II (striped on-road) bicycle facilities, except from Avenida Siega to the City/County limits where the shoulder would transition to an 8-foot wide shoulder to merge with the County

portion of the project. The edge of the pavement would have concrete curbs on each side of the roadway. The proposed additional lanes, shoulders, median, drainages, driveways, and sidewalk have been developed consistent with the standards in the Department's Highway Design Manual.

Intersection Improvements

There are five roadways that intersect with SR-74 from the south within the project limits: Calle Entradero, Via Cordova, Via Cristal, Via Errecarte, and Avenida Siega. North of SR-74, Via Cordova becomes Hunt Club Drive, and Avenida Siega becomes Shade Tree Lane. Additionally, to the north, Palm Hill Drive and Toyon Drive provide access to private property. Each intersection would be modified/widened to accommodate the additional lanes, median, and shoulders. At intersections where there are existing right-turn pockets (Via Cordova and Via Cristal), the right-turn pocket would remain. No new intersections are proposed.

Driveways

On the north side of SR-74 within the project limits, there are 11 existing driveways. Each of the 11 driveways would be modified to meet the grade of the widened roadway and to include reconstruction of the curb return. These driveways would be designed in order to maintain sight distance and to avoid safety issues. Along the south side east of the project limits, there are currently two paved driveways. These would be paved and modified to be compliant with the Americans with Disabilities Act (ADA). No new driveways are proposed.

Alternatives 1 and 2 would construct a retaining wall that would prevent access to SR-74 from an existing unpaved driveway located east of Shade Tree Lane and approximately 300 feet west of the City/County limits. When this parcel was subdivided, the vehicular access rights were relinquished with City approval. Additionally, this driveway is nonoperational for residential use due to its steep slope and unpaved condition.

Pedestrian and Bicycle Facilities

The existing sidewalk on the south side of SR-74 would be maintained in its current location with the exception of a portion of sidewalk at the intersection of Via Cordova, where the sidewalk would be shifted to the south and reconstructed to provide for the right-turn pocket at this intersection. A new sidewalk would be constructed to the east beyond Avenida Siega and would connect to the existing County sidewalk system to provide continuity.

Class II bicycle facilities are planned and would be provided on each side of the roadway as part of the five-foot-wide paved shoulders throughout the project limits. These facilities would be in conformance with the Orange County Transportation Authority (OCTA) Commuters Bikeways Strategic Plan (CBSP). The City's *General Plan* states in its Circulation Element that there is the need to promote an extensive public bicycle, pedestrian, and equestrian trails network. These bicycle facilities would comply with the City's goals.

Right-of-Way Acquisitions

The project would require sliver acquisitions from approximately 10 parcels adjacent to SR-74. No displacements or relocations would be required.

Cut and Fill

The roadway widening within the project limits would require cut slopes approximately 20 feet deep on the south side of SR-74 east of Via Cordova and between Via Cristal and Via Errecarte and a 700-foot long fill slope east of Avenida Siega up to eight feet high. The designed cut slopes on the north side of SR-74 would require buttress keyways approximately three to five feet deep by 15 feet wide

Drainage Improvements

Since most of the widening would occur on the north side of SR-74, all existing drainage facilities would be modified and extended to intercept flows at the proposed edge of pavement. An additional 10 drainage culverts would be added on the north side of SR-74 throughout the project limits. There would be no drainage systems added to the south side. However, existing drainage on the south side from Avenida Siega, where widening would occur to the City/County line, would be modified to intercept flows at the proposed edge of pavement.

Retaining Walls

There are five retaining walls on the north side of SR-74 under consideration, all of which would be designed to meet Caltrans Division of Structures requirements. They are:

- A 160 ft long, 2 to 16 ft high retaining wall on the north side of Palm Hill Drive;
- A 560 ft long, 2 to 20 ft high retaining wall from Palm Hill Drive to an access road;
- A 100 ft long, 2 to 10 ft high retaining wall just east of the abovementioned access road;
- A 280 ft long, 2 to 14 ft high retaining wall between Toyon Drive and an access road; and
- A 960 ft long, 8 to 24 ft high retaining wall between Shade Tree Lane to the City/County limits.

The wall type would be finalized during the design phase.

Sound Walls

The noise study recommended noise abatement measures to protect the residences on the south side of SR-74. Two sound walls are recommended for the Build Alternatives. They are:

- A 747-foot long, maximum of 16 feet high, sound wall on the south side of SR-74 from Via Cordova to Via Cristal; and
- A 1,228-foot long, maximum of 16 feet high, sound wall on the south side of SR-74 from Via Cristal to Via Errecarte.

Both sound walls would follow the alignment of the existing garden wall and construction would occur from the highway side thereby requiring minimal removal of existing vegetation. The maximum height of the sound walls would be 16 feet. In a letter, the City assured the Department that the City would fund the construction and maintenance of the sound walls where the cost exceeded Caltrans standard cost allocations.

There are two design variations for the sound walls: glass walls and Sound Fighter® walls. The use of glass panels would maintain the existing views of the southerly hills and San Juan Creek Valley and would provide light and transparency for the adjacent properties. The glass walls would be built on steel beams immediately in front of the existing garden walls and would have precast panels at the bottom of the glass wall; the existing garden walls would have precast panels at the bottom of the glass wall; the existing garden walls would not be exposed. The Sound Fighter® walls would eliminate potential reflective noise to the residents on the north side from the implementation of the sound walls on the south side of SR-74. These walls would be constructed similar to the glass walls but would be opaque. This VIA evaluates both options.

Signals and Lighting

Currently, there are no traffic signals within the project limits. This project does not warrant any signals at the existing intersections (see Intersection Improvements above for details). However, in the future should there be a need for a signal/pedestrian crossing, the current design does not preclude the opportunity to install a signal. All streetlights affected by the widening of SR-74 would be relocated and replaced in kind.

Utilities

All utilities such as power, gas, sewer, and telephone lines impacted by this project would be relocated or replaced in-kind within the project limits.

Landscaping

North of SR-74, in locations where retaining walls are proposed, new landscaping is proposed in front of the retaining walls. This proposed landscaping, with input from the City, would be designed to blend with the natural environment. South of SR-74, the type of sound wall would be determined during final design and would be selected to result in minimal construction disturbance to reduce vegetation removal. Any vegetation that is removed south of SR-74 would be replaced with vegetation where there is available space within the project limits and in coordination with the City.

Both of the Build Alternatives would require the removal of approximately 100 trees, from the north and south sides of SR-74. A tree removal permit would be obtained from the City for removal of these trees and for mitigation. Department guidelines do not allow replacement trees to be placed within the clear recovery zone of the traveled way (30 ft from the travel lane for speeds posted above 35 miles per hour [mph]). To the extent feasible, replacement trees would be planted within the project limits.

Pavement Rehabilitation

The project would also rehabilitate the existing pavement. The remaining existing pavement would be ground and overlaid with new Asphalt Concrete (AC) pavement to provide adequate strength to accommodate the projected traffic demand.

Construction

Construction for this project is expected to start fall of 2011 and be completed in the fall of 2013. No area is available within the project limits for exclusive use by the contractor. The highway right-of-way (R/W) shall be used only for the purposes that are necessary to perform the required work.

Unique Features of Build Alternatives***Build Alternative 1***

The Build Alternative 1 would remove the existing meandering sidewalk on the north side of SR-74, east of Calle Entradero. This alternative would widen SR-74 on the north side to avoid reconstructing the south side sidewalk.

Build Alternative 2***Highway Widening***

The existing sidewalk on the north side of SR-74 between Calle Entradero and Via Cordova would be reconstructed to the north. The existing meandering sidewalk would be reconstructed as a straight sidewalk (not curvilinear) within the existing public R/W.

Retaining Walls

In addition to the five retaining walls discussed above, two additional short retaining walls would be constructed north of the new reconstructed sidewalk along the south edge of the existing equestrian trail.

No Build Alternative

The No-Build Alternative would not include any improvements to the project and would result in LOS F operating conditions for the mainline. SR-74 traffic would flow at less than 35 miles per hour (mph) and result in significant delays. SR-74 would be maintained in its existing two-lane condition and would continue to be used by commuters, recreation traffic, and commercial trucks. The No Build Alternative is not consistent with regional and local transportation plans, would not alleviate existing and projected congestion in the study area, and would not meet the project purpose and need. The No-Build Alternative provides a baseline for comparing the effects associated with the Build Alternatives since this environmental analysis must consider the effects of not implementing the project.

Comparison of Alternatives

The differences between Alternatives 1, 2, and the No Build Alternative are shown in Table 1 (Summary of Project Alternatives).

Table 1
Summary of Project Alternatives

Alternative	Width of Project	Partial Acquisitions	Trees to be Removed	Retaining walls	Sound walls	Consistent with Plans	LOS (2035)
1	Varies from 78-79 ft	10 parcels	185	5	2	Yes	B and C
2	Varies from 78-79 ft	10 parcels	185	7	2	Yes	B and C
No Build	No change	None	None	None	0	No	F

Source: Austin-Foust Associates, *Draft State Route 74 Lower Ortega Highway Widening Traffic Study*, May 2008

III. ASSESSMENT METHOD

The assessment method used in this visual impact study generally follows the guidelines outlined in the Federal Highway Administration publication, Visual Impact Assessment for Highway Projects, dated March 1981.

Six steps required to assess visual impacts were performed, as follows:

- A. Define the project setting and viewshed.
- B. Identify key views for visual assessment.
- C. Analyze existing visual resources and viewer response.
- D. Depict the visual appearance of project alternatives.
- E. Assess the visual impacts of project alternatives.
- F. Propose methods to mitigate adverse visual impacts.

IV. VISUAL ENVIRONMENT OF THE PROJECT

A. Project Setting

The regional landscape establishes the general visual environment of the project. However, the specific visual environment which this assessment would focus upon is determined by defining landscape units and the project viewshed.

The proposed project is located in south Orange County, California, specifically in the City of San Juan Capistrano (City). The regional landscape is characterized by coastal communities, rolling hills, and canyons. The City is situated in a coastal valley (one mile from the Pacific Ocean) at the foothills of southern Orange County, near the southern tip of the Santa Ana Mountains and south of the San Joaquin Hills.

The terrain is predominantly composed of gently to steeply rolling hills containing deep cut canyons and gullies. The project site consists of State Route 74 (SR-74) (to the east of Interstate 5 [I-5]), which traverses the City in a southwest/northeast direction. The project site is located along a canyon formed by San Juan Creek, and ranges in elevation from approximately 135 feet to 175 feet above mean sea level (msl). SR-74, at the project site, passes through developed low-density residential, rural residential, and rural/agricultural land uses (from southwest to northeast).

B. Landscape Units

A landscape unit is a portion of the regional landscape and can be thought of as an outdoor room that exhibits a distinct visual character. A landscape unit often corresponds to a place or district that is commonly known among local viewers.

Landscape Unit 1 (LU1) – Developed Low Density Residential Landscape, is located within the southwestern portion of the project site. This urban landscape is characterized by low density residential land uses. SR-74, in LU1, includes a meandering sidewalk and an equestrian trail to the north, and a sidewalk to the south. Currently, no bike lanes are present within the project site. Ornamental vegetation located within LU1 consists of grasses and trees, with minimal shrubbery. Tree species to the north of SR-74 include the California Sycamore (*Platanus racemosa*) and London Plane Tree (*Platanus x acerfolia*); trunk diameter ranges from approximately eight to 24 inches. Tree species to the south of SR-74 include the Lemon-Scented Gum (*Eucalyptus citriodora*), Evergreen Elm (*Ulmus parvifolia*), Eucalyptus (*Eucalyptus spp.*), Sweetgum (*Liquidambar styraciflua*), and London Plane Tree (*Platanus x acerfolia*); trunk diameters range from approximately eight to 30 inches.

Landscape Unit 2 (LU2) – Rural Residential Landscape, is located within the central portion of the project site. This rural landscape is characterized by low density rural residential land uses. SR-74, in LU2, includes a meandering sidewalk and ornamental landscaping to the south. Rural residential dwelling units and sloping vacant land is located to the north of SR-74. Disturbed native and non-native vegetation is located within the sloping vacant areas along the project site. Tree species to the north of SR-74 include the California Pepper Tree (*Schinus molle*), Canary Island Palm (*Phoenix canariensis*), Eucalyptus (*Eucalyptus spp.*), Olive Tree (*Olea europea*), Myoporum insulare, and Mexican Fan Palm (*Washingtonia robusta*); trunk diameter ranges from approximately eight to 35 inches. Tree species to the south of SR-74 include the Eucalyptus (*Eucalyptus spp.*), Sweetgum (*Liquidambar styraciflua*), and Evergreen Elm (*Ulmus parvifolia*); trunk diameters range from approximately six to 24 inches.

Landscape Unit 3 (LU3) – Rural/Agricultural Landscape, is located within the northeastern portion of the project site. This rural/agricultural landscape is characterized by low density rural residential and agricultural land uses. SR-74, in LU3, adjoins rural residential dwelling units and sloping vacant land. Landscaping within LU3 consists of disturbed ornamental landscaping within private property and native and non-native vegetation within sloping vacant areas. Tree species to the north of SR-74 include the Brazilian Pepper Tree (*Schinus terebinthefolius*) and California Pepper Tree (*Schinus molle*); trunk diameters range from approximately 10 to 48 inches. Tree species to the south of SR-74 include the California Pepper Tree, Coast Live Oak (*Quercus agrifolia*), Spanish Dagger (*Yucca gloriosa*), and Evergreen Elm (*Ulmus parvifolia*); trunk diameters range from approximately eight to 30 inches.

C. Project Viewshed

A viewshed is a subset of a landscape unit and is comprised of all the surface areas visible from an observer's viewpoint. The limits of a viewshed are defined as the visual limits of the views located from the proposed project. The viewshed also includes the locations of viewers likely to be affected by visual changes brought about by project features.

The majority of views of the project site include those from the westbound and eastbound travel lanes of SR-74 as well as limited views from hillside residential dwelling units (to the north and south of San Juan Creek) that are located within the canyon; refer to Figure 4 (Viewshed Map). Views from the adjoining urban, rural, and agricultural development in the project area exist. Based upon a site visit conducted on March 24, 2008, the majority of views to the project area are from adjoining land uses to the north and south of the project site. Existing topography, structures, and landscaping/vegetation screen views from other uses located further away from the project area.

V. EXISTING VISUAL RESOURCES AND VIEWER RESPONSE

A. FHWA Method of Visual Resource Analysis

Identify Visual Character – Visual character is descriptive and non-evaluative, which means it is based on defined attributes that are neither good nor bad. A change in visual character cannot be described as having good or bad attributes until it is compared with the viewer response to that change. If there is public preference for the established visual character of a regional landscape and resistance to a project that would contrast that character, then changes in the visual character can be evaluated.

Assess Visual Quality – Visual quality is evaluated by identifying the vividness, intactness, and unity present in the viewshed. The FHWA states that this method should correlate with public judgments of visual quality well enough to predict those judgments. This approach is particularly useful in highway planning because it does not presume that a highway project is necessarily an eyesore. This approach to evaluating visual quality can also help identify specific methods for mitigating each adverse impact that may occur as a result of a project. The three criteria for evaluating visual quality can be defined as follows:

Vividness is the visual power or memorability of landscape components as they combine in distinctive visual patterns.

Intactness is the visual integrity of the natural and man-built landscape and its freedom from encroaching elements. It can be present in well-kept urban and rural landscapes, as well as in natural settings.

Unity is the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to the careful design of individual man-made components in the landscape.

B. Existing Visual Resources

Existing Visual Character

LU1 is located within a developed low density residential landscape. Existing visual resources visible within the LU1 viewshed include SR-74 and associated pedestrian sidewalk and equestrian trail. Ornamental landscaping is present along the meandering sidewalk to the north and south of SR-74. This landscaping includes mostly grass and trees, with shrubs located on sloping topography. Tree species that dominate this view include the California Sycamore and London Plane Tree to the north and the Lemon-Scented Gum, Evergreen Elm, Eucalyptus, Sweetgum, and London Plane Tree to the south. Although the project is located within the San Juan Creek Watershed, no water features are visible within LU1.

LU2 is located within a low density rural residential landscape. Existing visual resources visible within the LU2 viewshed include SR-74 and associated pedestrian sidewalk located to the south. Ornamental landscaping is present along private property to the north and ornamental landscaping associated with a meandering sidewalk is visible to the south. The landscaping in LU2 includes grass, shrubs, and trees. Tree species that dominate this view include the California Pepper Tree, Canary Island Palm, Eucalyptus, Olive Tree, Myoporum insulare, and Mexican Fan Palm to the north and the Eucalyptus, Sweetgum, and Evergreen Elm to the south. Although the project is located within the San Juan Creek Watershed, no water features are visible within LU2.

LU3 is located within a rural/agricultural landscape. Existing visual resources visible within the LU3 viewshed include SR-74 and associated roadside vegetation. Vegetation in LU3 consists of mostly shrubs and trees, with minimal grasses. Tree species that dominate this view include the Brazilian Pepper Tree and California Pepper Tree to the north and the California Pepper Tree, Coast Live Oak, Spanish Dagger, and Evergreen Elm to the south. Although the project is located within the San Juan Creek Watershed, no water features are visible within LU3.

Existing Visual Quality

The average existing visual quality within the project site is considered to be moderately high to high. The project site contains moderate to high vividness, and many views within the project boundaries are considered memorable. Although views of existing overhead power lines are present in LU2 and LU3, intactness remains moderate to moderately high. There are limited background views and no distant views along the project site due to large trees. Color varies throughout the project site as a result of the ornamental landscaping and vegetation.

C. Methods of Predicting Viewer Response

Viewer response is composed of two elements: viewer sensitivity and viewer exposure. These elements combine to form a method of predicting how the public might react to visual changes brought about by a highway project.

Viewer sensitivity is defined both as the viewers' concern for scenic quality and the viewers' response to changes in the visual resources that make up the view. Local

values and objectives may confer visual significance on landscape components and areas that would otherwise appear unexceptional in a visual resource analysis. Even when the existing appearance of a project site is uninspiring, a community may still object to projects that fall short of its visual goals. Analysts can learn about these special resources and community aspirations for visual quality through citizen participation procedures, as well as from local publications and planning documents.

Viewer exposure is typically assessed by measuring the number of viewers exposed to the resource change, type of viewer activity, duration of their view, speed at which the viewer moves, and position of the viewer. High viewer exposure heightens the importance of early consideration of design, art, and architecture, along with their roles in managing the visual resource effects of a project.

D. Existing Viewer Sensitivity

Multiple sensitive viewers adjoin the project site, the majority of which consist of the residential uses located north and south of SR-74. Additionally, many driveways utilize SR-74 through the project site, and thus have a high sensitivity to alteration of views. SR-74, in Orange County, has not been officially designated as a California State Scenic Highway. However, SR-74 at the project site is eligible for the designation. Additionally, the City of San Juan Capistrano has designated SR-74 as a scenic corridor. The *San Juan Capistrano General Plan* includes policies pertaining to conservation and enhancement of the visual quality of the City. Visual conservation/enhancement policies that pertain to the project site include the following:

Image and Identify

Community Design Goal 1: Encourage and preserve a sense of place.

Policy 1.2: Encourage high-quality and human scale design in development to maintain the character of the City.

Community Design Goal 3: Preserve and enhance natural features.

Policy 3.3: Preserve and enhance scenic transportation corridors, including Interstate 5 and the railroad.

Policy 3.4: Preserve important viewsheds.

Circulation Corridors

With Interstate 5 bisecting San Juan Capistrano, and several major arterials traversing the City, the following criteria work to minimize the impacts of the circulation system on the surrounding community:

- Use of sound barriers, and other sound attenuating elements along heavily traveled highways or other major transportation routes;
- Use of minimal street widths in hillside areas;
- Use of the following design standards for scenic highways or corridors:
 - 1) prohibition of on-street parking except in certain designated areas;

- 2) undergrounding of utilities; 3) the use of rolled curbs, where feasible;
- 4) the extensive use of landscaped parkways and median strips; 5) the extensive use of setbacks to soften urban developments; and 6) the use of a variety of materials for sidewalks;
- Physical separation of vehicular and non-vehicular traffic in scenic corridors; and,
- Minimization of night lighting, particularly along Interstate 5 and at the entry points to the City.

Scenic Corridors

Major travelways, including both vehicular and rail, provide the public with a visual image of the quality of life envisioned by the community. The following design criteria is provided to ensure that these scenic corridors are developed with a sense of care to aesthetic values:

- Buffer to screen existing unsightly features outside of the right-of-way;
- Use of innovative design features for bicycle, sidewalks, equestrian trails, boundary walls, and parkways; and
- Attention to building design features that are proposed adjacent to a scenic corridor.

Human Resources

San Juan Capistrano has many homeowner associations, community groups, and business groups which represent important resources for accomplishing long-term community goals. These groups often include volunteer leaders and workers who have a distinct understanding of their neighborhoods. These significant human resources may be used to establish and achieve community goals.

Conservation and Open Space Goal 8: Encourage active citizen involvement to establish and achieve community goals.

Policy 8.1: Solicit citizen participation during the early stages of major public and regulatory programs.

Policy 8.2: Develop appropriate vehicles, such as newsletters, information brochures, cable television programming and announcements, and other methods, to communicate important information to the population of San Juan Capistrano.

In addition to the *San Juan Capistrano General Plan*, the City has adopted *Architectural Design Guidelines* (Guidelines), dated January 1991, to implement the *General Plan* goals and policies for the preservation and enhancement of the character of San Juan Capistrano. The *Guidelines* serve to assist architects, design professionals, and developers in preserving and enhancing the special qualities and fabric of the community.

The City's *Zoning Ordinance* contains ordinances that address design-related issues such as design review for certain projects, sign review, and tree preservation. Implementation of these ordinances work towards protecting and enhancing the visual character of the community.

E. Existing Viewer Groups, Viewer Exposure, and Viewer Awareness**State Highway 74 Travelers**

Many drivers commute from Riverside to south Orange County via SR-74 everyday. The existing ADT and peak-hour volumes within the project limits on the SR-74 (both directions) are approximately 25,000 and 2,430 vehicles per hour (vph) respectively for the year 2008.

Daily commuters have an increased awareness of views from the road due to the unique transition from a rural to a suburban landscape. Drivers traveling along the project site would likely perceive detailed views of the proposed features. Passengers have a heightened awareness of a wide range of views.

Community Residents

Numerous residents live near the project area, some of which have long-duration middleground views of SR-74. Structures, landscaping, and/or slopes currently screen most views of SR-74 from residents.

Based on the *General Plan*, as previously discussed, residents are concerned with their community's sense of place, pedestrian scale development, and the preservation and enhancement of the City's natural features, scenic transportation corridors, and important viewsheds. As a result, residents are likely to have a high concern for the project and its effect on views from their homes and neighborhoods.

Local Street Users

Many bicyclists and pedestrians using SR-74 each day have moderate duration views of the project site. There are a few frontage streets that have direct and indirect views to the project. Local street users would have a high awareness of the project.

Recreation Uses

Horseback riders that utilize the adjoining equestrian trail would have foreground and middleground views of the project site for longer periods of time.

These recreation users may be concerned about the appearance of the project. The equestrian trail users would have an acute awareness of the proposed project features. Horseback riders would have a moderate degree of concern about the effect of the proposed roadway widening on their riding experience.

VI. VISUAL IMPACT ASSESSMENT**A. Method of Assessing Project Impacts**

The visual impacts of project alternatives are determined by assessing the visual resource change due to the project and predicting viewer response to that change.

Visual resource change is the sum of the change in visual character and change in visual quality. The first step in determining visual resource change is to assess the compatibility of the proposed project with the visual character of the existing landscape. The second step is to compare the visual quality of the existing resources with projected visual quality after the project is constructed.

The viewer response to project changes is the sum of viewer exposure and viewer sensitivity to the project as determined in the preceding section.

The resulting level of visual impact is determined by combining the severity of resource change with the degree to which people are likely to oppose the change.

B. Definition of Visual Impact Levels

For the purpose of this assessment, project impacts were assessed for each Key View selected. Visual resource change was measured using the Visual Quality Evaluation Form, administered by the FHWA; refer to Appendix A (Visual Quality Evaluation Forms). The Visual Quality Evaluation Form allows the analyst to assign a numerical value to existing visual conditions, as well as assess the resulting visual quality upon project implementation. A scaled rating system of 1 through 7 was used to designate a numerical value. The numerical value of 1 represents a very low unit of measurement, and 7 represents a very high unit of measurement. A numerical value for vividness, intactness, and unity was given for existing and proposed conditions within each Key View selected.

The potential for an adverse impact depends upon the severity of resource change and the degree to which people are likely to oppose the change. Therefore, the following criteria is utilized for determining the resulting visual impacts at each Key View point, based on comparing the difference in visual quality to the predicted viewer response, which is as follows:

Low – Minor adverse change to the existing visual resource, with low viewer response to change in the visual environment. May or may not require mitigation.

Moderate – Moderate adverse change to the visual resource with moderate viewer response. Impact can be mitigated within five years using conventional practices.

Moderately High – Moderate adverse visual resource change with high viewer response or high adverse visual resource change with moderate viewer response. Extraordinary mitigation practices may be required. Landscape treatment required will generally take longer than five years to mitigate.

High – A high level of adverse change to the resource or a high level of viewer response to visual change such that architectural design and landscape treatment cannot mitigate the impacts. Viewer response level is high. An alternative project design may be required to avoid highly adverse impacts.

C. Analysis of Key Views

Because it is not feasible to analyze all the views in which the proposed project would be seen, it is necessary to select a number of Key Views that would most clearly display the visual effects of the project. Key Views also represent the primary viewer groups that would potentially be affected by the project; refer to Figure 5a (Key View Index Map – Alternative 1) and Figure 5b (Key View Index Map – Alternative 2) for a visual representation of the Key View locations and their orientation.

Key View #1 (Viewers from the Road)

Orientation

Key View 1 is representative of LU1 and is located within the southwestern portion of the project site. This view looks to the west, along the westbound travel lane of SR-74; refer to Figure 6a (Key View 1 – Existing Condition).

Existing Visual Quality/Character

Based on the Visual Quality Evaluation conducted at this Key View, vividness was rated at 7, intactness was rated at 7, and unity was rated at 7, resulting in an overall quality rating of 7; refer to Appendix A. The existing visual quality and character of the site is high (generally rated at 7). Mature ornamental landscaping and the line pattern formed by the roadway, meandering sidewalk, and equestrian trails provide a high level of vividness, intactness, and unity.

Travelers along westbound SR-74 have views to a two-lane highway, a meandering sidewalk, and an equestrian trail to the north of the roadway. Ornamental trees in this Key View include the California Sycamore, London Plane Tree, Lemon-Scented Gum, Evergreen Elm, Eucalyptus, and Sweetgum. The existing color contrast between the ornamental landscaping and the lighter appearance of sidewalks and roadway is vivid. Intactness appears to be high, as the visible encroachment in this Key View is low. Although residential development exists in the area, the mature ornamental landscaping, meandering sidewalks, and the equestrian trail permit this Key View to remain rural in nature. This particular landscape unit provides a transition from the rural landscape to the east with the developed landscape further to the west.

Sources of light and glare within this Key View consist of street lighting along the north and south side of SR-74. Also, headlights from travelers heading eastbound on SR-74 are visible.

Proposed Project Features

Upon implementation of Alternative 1, the existing sidewalk and ornamental landscaping would be replaced with proposed roadway, curb and gutter, and ornamental landscaping.

Upon implementation of Alternative 2, the existing sidewalk and ornamental landscaping would be replaced with proposed roadway, curb and gutter, two retaining wall structures, and ornamental landscaping. The following is a description of proposed retaining wall dimensions that would be visible in Alternative 2:

- Retaining Wall. 26 feet long (ranging from three to five feet high) and located to the north of SR-74.
- Retaining Wall. 67 feet in length (ranging from three to five feet in height) and located to the north of SR-74.

Changes to Visual Quality/Character

Upon implementation of Alternative 1, the existing meandering sidewalk would be replaced with the widened SR-74; refer to Figure 6b (Key View 1 – Proposed Condition). Implementation of Alternative 2 would replace the existing meandering sidewalk with the widened SR-74 and a sidewalk. Visual changes to the quality and character at this Key View would be moderate (resulting in a general quality rating of 6 after implementation of either Alternatives 1 or 2) unless avoided, minimized, or mitigated due to the decreased contrast in meandering and curvilinear lines and an increased appearance in encroaching features to the north of SR-74.

Alternative 2 may further increase dominance of hardscape features in the project area, compared to Alternative 1, as a result of the proposed retaining walls and the replacement sidewalk. With implementation of Mitigation Measure 6 (MM-6), aesthetic enhancement would be applied to the proposed retaining walls. The new sidewalk would also increase the developed appearance of this Key View, as the sidewalk would appear similar in line pattern to the adjoining highway. Implementation of Mitigation Measure 7 (MM-7) would require aesthetic enhancements (i.e., color treatment, textural treatment, varying setbacks from the highway, use of material other than concrete, etc.) for the replaced sidewalk.

Landscaping would be removed to the north of SR-74 for both Alternatives 1 and 2. However, the project would be required to replant new landscaping in a manner that is consistent with the appearance of the existing ornamental landscaping (MM-2). Trees that are removed would be replaced where feasible (MM-3). Where speeds are posted greater than 35 miles per hour, large trees (trees with trunks over four inches in diameter when mature) would be placed outside the clear recovery zone. However, small trees (trees with trunks four inches in diameter or less when mature) would be replanted within the clear recovery zone areas. Landscape palettes and concept plans would be implemented with the concurrence of the Department District Landscape Architect.

Although implementation of MM-2, MM-3, MM-6, and MM-7 (for Alternative 2 only) would reduce the developed appearance of the project and increase the pedestrian scale environment, the landscape would change from a suburban/rural landscape to a more suburban landscape. Therefore, the widened roadway would result in a moderate to moderately high change to the existing character/quality at this Key View.

Light and glare impacts within the project area would remain similar to the existing conditions.

Viewer Response

Although surrounding residential dwelling units would not have direct views, the pedestrians and recreational users along the sidewalks and equestrian trail would have long duration views of the project features. Sensitivity to visual change would be high

for those viewer groups. Also, many travelers/commuters along SR-74 would be exposed to moderate duration views of the project. Due to the moderate number of viewers affected, the overall viewer response to change would be high.

Resulting Visual Impact

Project improvements would moderately affect existing views of the project from this Key View (rated difference of -1.0 for Alternative 1 and -1.4 for Alternative 2). Additionally, sensitive viewers would have a high viewer response to project changes. Changes would be considered moderately high after implementation of avoidance, minimization, and mitigation measures. The project would increase hardscape features within the area by adding additional roadway (Alternatives 1 and 2), sidewalk and wall features (in Alternative 2 only), and removing existing ornamental vegetation from views of the project site (Alternatives 1 and 2).

Alternative 1 would remove the existing meandering sidewalk, which currently contributes to a rural landscape within this suburban setting. Although implementation of Alternative 2 would replace the sidewalk, this new sidewalk would appear curvilinear to the proposed roadway. Therefore, although Alternative 2 replaces the sidewalk that would be removed, Alternative 2 does not decrease the developed appearance of the site. With implementation of MM-7, the impacts associated with the replacement sidewalk (Alternative 2) would be reduced. Additionally, implementation of recommended avoidance, minimization, and mitigation measures (MM-2, MM-3, and MM-6) pertaining to landscaped aesthetic treatment (i.e., replacement of ornamental landscaping), tree planting (where feasible), and aesthetic enhancement applied to the retaining walls would enhance the pedestrian and driver scale environment and reduce the appearance of hardscape. However, although these mitigation measures would reduce the possibility of adverse impacts, the high viewer awareness of these impacts would remain moderately high. Therefore, the visible change in character/quality at Key View 1 would remain moderately high for both Alternatives 1 and 2.

Key View #2 (Viewers from the Road)

Orientation

Key View 2 is representative of LU2 and was taken from the westbound travel lane of SR-74, to the east of Via Cristal. This view looks to the west along SR-74; refer to Figure 7a (Key View 2 – Existing Condition).

Existing Visual Character

Based on the Visual Quality Evaluation conducted at this Key View, vividness was rated at 5, intactness was rated at 5, and unity was rated at 5, resulting in an overall quality rating of 5.0; refer to Appendix A. The existing visual quality and character of the views are moderately high (generally rated at 5).

Travelers along eastbound SR-74 have views to a two-lane highway, meandering sidewalk, and ornamental landscaping. A rural residential dwelling unit is located to the north. The foreground and middleground of Key View 2 afford views to mature ornamental (non-native) landscaping to the north. A private drive extends north off of SR-74. Suburban development is located to the south. Existing mature landscaping

screens the majority of views to suburban development. Overhead power lines are visible extending parallel to and to the north of SR-74. Streetscape is visible to the south of SR-74. The streetscape includes meandering sidewalk and ornamental vegetation. Large tree species along the sidewalk include the California Pepper Tree, Eucalyptus, Sweetgum, and Evergreen Elm. Background views include SR-74 and mature ornamental landscaping.

Intactness appears to be moderately high as the visible encroachment in this Key View is low to moderate. Mature vegetation screens the majority of views to adjoining residents to the south. Also, residents to the north appear to be set back from SR-74 by approximately 70 feet or more. The mature vegetation and existing topography screen the majority of views from residents to the south. The streetscape to the south buffers the visible encroachment from SR-74 onto residents to the south.

Similar to the surrounding visible landscape, this Key View appears rural in nature. However, the suburban land to the south slightly contrasts with the rural residential landscape to the north. Ornamental landscaping to the south creates visual continuity between the northern and southern land uses. Therefore, the overall unity in this Key View is moderately high.

Sources of light and glare within this Key View consist of street lighting along the south side of SR-74. Also, headlights from drivers traveling eastbound along SR-74 are visible.

Proposed Project Features

Visible project features would appear similar in Alternatives 1 and 2. Development of Alternatives 1 and 2 would widen SR-74 to four lanes and introduce curb and gutter, three retaining wall structures, and ornamental landscaping to the north. The following is a description of proposed retaining wall dimensions:

- Retaining Wall. 160 feet long (ranging from 2 to 16 feet in height) and located to the north of SR-74.
- Retaining Wall. 560 feet long (ranging from 2 to 20 feet in height) and located to the north of SR-74.
- Retaining Wall. 100 feet in length (ranging from 2 to 10 feet in height) and located to the north of SR-74.

Changes to Visual Quality/Character

Upon implementation of Alternatives 1 and 2, land uses to the south of SR-74 would appear similar to existing conditions; refer to Figure 7b (Key View 2 – Proposed Condition). However, the project would widen SR-74, to the north, to include curb and gutter, ornamental landscaping, and retaining wall features. Visual changes to the quality and character at this Key View would be moderately high (resulting in an overall quality rating of 4 after implementation of the proposed project) unless avoided, minimized, or mitigated due to the increased hardscape features and widened roadway, which appear to encroach onto the hillside to the north.

The proposed retaining walls would increase dominance of hardscape features and increased light reflectivity from the additional concrete (with the resultant radiant heat

glare). With implementation of MM-6, aesthetic enhancements would be applied to the proposed retaining walls. Additionally, MM-2 would provide a vine treatment to the retaining wall structures, which would reduce the resultant light reflectivity. The aesthetic enhancements would increase the pedestrian scale environment and reduce the hardscape appearance of wall features.

Ornamental landscaping to the north would be removed. However, the project would be required to replant new landscaping in a manner that is consistent with the appearance of the surrounding community (MM-2). Landscape palettes and concept plans would be implemented with the concurrence of the Department District Landscape Architect.

Light and glare impacts from vehicles traveling along SR-74 would remain similar to the existing conditions. The project would realign the private driveway to the north of SR-74. This realignment would not create new sources of light and glare.

Viewer Response

Although residential dwelling units to the south would not have direct views, the pedestrians along the sidewalks to the south and the few private residents to the north would have long duration views of the project features. Sensitivity to visual change would be moderate for those viewer groups. Also, many travelers/commuters along SR-74 would be exposed to moderate duration views of the project. Due to the moderate number of viewers affected, the overall viewer response to change would be moderately high.

Resulting Visual Impact

Project improvements would have a moderately high effect on existing views of the project from this Key View (rated difference of -1.0). Additionally, sensitive viewers would have a moderately high viewer response to these project changes. Changes would be considered moderately high unless avoided, minimized, and/or mitigated.

Implementation of the proposed project would increase hardscape features within the area by widening the roadway and adding large retaining wall features adjacent to residents. Implementation of recommended avoidance, minimization, and mitigation measures (MM-2 and MM-6) pertaining to landscaping (i.e., replacement of ornamental landscaping) and aesthetic enhancement applied to the retaining walls would enhance the pedestrian and driver scale environment and reduce the appearance of hardscape. The proposed planting and aesthetic treatments would reduce the possibility of adverse visual impacts and maintain the rural character of the community. However, the resultant visible change in character/quality at Key View 2 would remain moderate upon project implementation.

Key View #3 (Viewers from the Road)

Orientation

Key View 3 is representative of LU2 and was taken from the eastbound travel lane of SR-74 between Via Cristal and Via Errecarte. This view looks to the east, toward the eastbound travel lane of SR-74; refer to Figure 8a (Key View 3 – Existing Condition).

Existing Visual Character

Based on the Visual Quality Evaluation conducted at this Key View, vividness was rated at 6, intactness was rated at 5, and unity was rated at 5, resulting in an overall quality rating of 5.3; refer to Appendix A. The existing visual quality and character of the views are moderately high (generally rated at 5).

Travelers along eastbound SR-74 have views to a two-lane highway, meandering sidewalk, and ornamental landscaping. A rural residential dwelling unit is located to the north. The foreground and middleground of Key View 3 afford views to mature ornamental (non-native) landscaping to the north. Private drives extend north off of SR-74. Overhead power lines are visible extending parallel to SR-74. Streetscape is visible to the south of SR-74. The streetscape includes meandering sidewalk and ornamental vegetation. Large tree species along the sidewalk include the Evergreen Elm. Background views include hillside grasses.

Intactness appears to be moderately high as the visible encroachment in this Key View is low to moderate. Mature vegetation screens the majority of views to adjoining residents to the north. Also, residents to the north are currently set back from SR-74 by approximately 40 feet or more. The mature vegetation and existing topography completely screen views from residents to the south. The meandering sidewalk and streetscape to the south buffer the visible encroachment from SR-74 onto residents to the south.

Similar to the surrounding visible landscape, this Key View appears rural in nature. Although low density residential uses are located to the south of SR-74, these land uses are screened by topographic features and mature ornamental landscaping. This particular landscape unit provides a transition from the developed low density residential landscape to the west with the rural/agricultural landscape to the east.

Sources of light and glare within this Key View consist of street lighting along the south side of SR-74. Also, headlights from travelers heading westbound on SR-74 are visible.

Proposed Project Features

Visible project features would appear similar in Alternatives 1 and 2. Development of Alternatives 1 and 2 would widen SR-74 to four lanes and introduce curb and gutter, one retaining wall, and native hydroseed vegetation to the north, as well as one soundwall to the south of SR-74. The following is a description of proposed soundwall and retaining wall dimensions:

- Soundwall. Reaching 747 feet in length (up to 16 feet in height) and located to the south of SR-74.
- Retaining wall. 280 feet long (ranging from 2 to 14 feet in height) and located to the north of SR-74.

Changes to Visual Quality/Character

Upon implementation of Alternatives 1 and 2, SR-74 would be widened to the north and a new soundwall would replace the existing brick wall to the south; refer to Figure 8b

(Key View 3 – Proposed Condition). The widened SR-74 would include new curb and gutter and ornamental landscaping would be replaced. Moderate visual changes to the quality and character at this Key View would be occur (resulting in an overall quality rating of 5 after implementation of the proposed project) unless avoided, minimized, or mitigated due to the increased hardscape features and widened roadway, which appear to encroach onto the residents to the north and south.

The proposed soundwall would increase the dominance of hardscape features and increased light reflectivity from the additional concrete (with the resultant radiant heat glare). The severity of this impact would vary depending on what architectural treatments are implemented. The visible encroachment would be greater with the Sound Fighter® wall rather than the plexiglas soundwall. With implementation of Mitigation Measure (MM) 3, a landscaped aesthetic treatment (i.e., tree planting, vine treatment, etc.) would be added to opaque wall structures to enhance a pedestrian scale environment and reduce the hardscape appearance and resultant light reflectivity (MM-2).

Ornamental landscaping to the north would be removed. However, the project would be required to replant new landscaping in a manner that is consistent with the appearance of the surrounding community (MM-2). Landscape palettes and concept plans would be implemented with the concurrence of the Department District Landscape Architect.

Light and glare impacts from vehicles traveling along SR-74 would remain similar to the existing conditions.

Overall, the widened roadway would not significantly change the landscape to the north. Although the new soundwall would increase encroaching features, the ornamental landscaping that would remain in the vicinity of the soundwall would reduce the encroaching features to a moderately low impact and would allow for the rural appearance of this Key View to remain.

Viewer Response

Although residential dwelling units to the south would not have direct views, the pedestrians along the sidewalks to the south and the few private residents to the north would have long duration views of the project features. Sensitivity to visual change would be moderate for those viewer groups. Also, many travelers/commuters along SR-74 would be exposed to moderate duration views of the project. Due to the moderate number of viewers affected, the overall viewer response to change would be moderately high.

Resulting Visual Impact

Project improvements would have a moderately low effect on existing views of the project from this Key View (rated difference of -0.6); however, sensitive viewers would have a moderately high viewer response to these project changes. Changes would be reduced to a moderately low impact upon avoidance, minimization, and mitigation (MM-2 and MM-6). Implementation of MM-2 and MM-6 pertaining to landscaping and aesthetic enhancements applied to the opaque soundwalls would enhance the pedestrian and driver scale environment and reduce the visible hardscape. Although the viewer awareness of these impacts would be moderately high, the proposed planting and aesthetic treatments would reduce the visible impacts and maintain the rural character of

the community. Therefore, the visible change in character/quality at Key View 3 would be reduced to moderately low levels with implementation of MM-2 and MM-6.

Key View #4 (Viewers from the Road)

Orientation

Key View 4 is representative of LU2 and was taken from the westbound travel lane of SR-74, at Via Errecarte. This view looks west along the proposed project; refer to Figure 9a (Key View 4 – Existing Condition).

Existing Visual Character

Based on the Visual Quality Evaluation conducted at this Key View, vividness was rated at 5, intactness was rated at 6, and unity was rated at 6, resulting in an overall quality rating of 5.7; refer to Appendix A. The existing visual quality and character of the views is considered moderately high (generally rated at 6).

Travelers along westbound SR-74 have foreground and middleground views to a two-lane highway, ornamental landscaping, and sloping vegetation. Additionally, streetscape (sidewalk and associated landscaping) is visible to the south of SR-74. Background views to mature ornamental landscaping are also visible. Intactness appears to be moderately high. The foreground, middleground, and background of this Key View are afforded by mature ornamental landscaping, which screen views to adjoining residents. Although the streetscape to the south of SR-74 increases the developed appearance, this Key View remains rural in nature due to the ornamental landscaping, undeveloped sloping topography, and the absence of buildings. Topographic features and mature ornamental landscaping screen views to low density residential and rural residential uses to the north and south of SR-74. Therefore, although development is present, the mature landscaping maintains the rural appearance of the landscape. This particular landscape unit provides a transition from the developed low density residential landscape to the west with the rural/agricultural landscape to the east.

Sources of light and glare within this Key View consist of street lighting along the south side of SR-74. Also, headlights from travelers heading eastbound on SR-74 are visible.

Proposed Project Features

Visible project features would appear similar in Alternatives 1 and 2. The development of Alternatives 1 and 2 would widen SR-74 to four lanes and introduce curb and gutter, one retaining wall, and native hydroseed vegetation to the north and one soundwall to the south of SR-74. The following is a description of proposed soundwall and retaining wall dimensions:

- Retaining wall. 280 feet long (ranging from 2 to 14 feet in height) and located to the north of SR-74.
- Soundwall. 1,228 feet in length (up to 16 feet in height) and located to the south of SR-74.

Changes to Visual Quality/Character

Upon implementation of Alternatives 1 and 2, SR-74 would be widened to the north and a new soundwall would replace the existing brick wall to the south; refer to Figure 9b (Key View 4 – Proposed Condition). The widened SR-74 would include new curb and gutter and ornamental landscaping replacement. Visual changes to the quality and character at this Key View would be moderately high (resulting in an overall quality rating of 4 after implementation of the proposed project) unless avoided, minimized, or mitigated due to the increased hardscape features and the widened roadway, which appear to encroach onto the residents to the south and the hillside to the north.

The proposed soundwall would increase the dominance of hardscape features and light reflectivity from the additional concrete (with the resultant radiant heat glare). The severity of this impact would vary depending on what architectural treatments are implemented. The encroachment would be greater with the Sound Fighter® wall rather than the plexiglas soundwall. With implementation of MM-2, a landscaped aesthetic treatment (i.e., vine treatment, high shrubs, etc.) would be added to opaque wall structures to enhance a pedestrian scale environment and reduce the hardscape appearance.

The proposed retaining wall would increase the dominance of hardscape features and light reflectivity from the additional concrete (with the resultant radiant heat glare). With implementation of MM-6, aesthetic enhancements would be applied to the proposed retaining walls. Additionally, MM-2 would provide a vine treatment to the retaining wall structures, which would reduce resultant light reflectivity. The aesthetic enhancements would increase the pedestrian scale environment and reduce the hardscape appearance of wall features.

Although implementation of MM-2 and MM-6 would reduce the developed appearance of the project and increase the pedestrian scale environment, the landscape would change from a rural landscape to a more suburban landscape. Therefore, the widened roadway would result in a moderately high change to the existing character/quality at this Key View.

Light and glare impacts from vehicles traveling along SR-74 would remain similar to the existing conditions.

Viewer Response

Although residential dwelling units to the north and south would not have direct views, the pedestrians along the sidewalk to the south would have long duration views of the project features. Due to the fairly low pedestrian traffic at this portion of SR-74, viewer sensitivity to visual change would be moderately low for that viewer group. However, many travelers/commuters along SR-74 would be exposed to moderate duration views of the project. Due to the moderate number of viewers from the road affected, the overall viewer response to change would be moderate.

Resulting Visual Impact

Project improvements would have a moderately high affect on the existing views of the project from this Key View (rated difference of -1.7). Additionally, sensitive viewers

would have a moderate viewer response to project changes. Changes would be considered moderately high after implementation of avoidance, minimization, and mitigation measures. The project would increase hardscape features within the area by adding additional roadway and soundwall and retaining wall features. This increase in visible hardscape would moderately contribute to the developed appearance of this rural landscape.

Implementation of MM-2 and MM-6 pertaining to landscaping and aesthetic enhancement applied to the opaque soundwalls and retaining walls would enhance the pedestrian and driver scale environment and reduce visible hardscape. Although these mitigation measures would reduce the possibility of adverse impacts, the moderate viewer awareness of these impacts would result in moderately high impacts. Therefore, the visible change in character/quality at Key View 4 would remain moderately high after implementation of MM-2 and MM-6.

Key View #5 (Viewers from the Road)

Orientation

Key View 5 is representative of LU3 and is located along westbound SR-74, between Avenida Siega and the City/County municipal boundary. This view looks west along the proposed project; refer to Figure 10a (Key View 5 – Existing Condition).

Existing Visual Character

Based on the Visual Quality Evaluation conducted at this Key View, vividness was rated at 5, intactness was rated at 4, and unity was rated at 6, resulting in an overall quality rating of 5.0; refer to Appendix A. The existing visual quality and character of the views is considered moderately high (generally rated at 5).

Travelers along westbound SR-74 have views to a two-lane highway, mature ornamental landscaping, and sloping vegetation. Tree species in this Key View include the Brazilian Pepper Tree, California Pepper Tree, Coast Live Oak, Spanish Dagger, and Evergreen Elm. Middleground views to overhead power lines are present. The existing color and textural contrast between vegetation, soil, and the roadway create a moderately high rating for vividness. However, the horizontal line pattern associated with the overhead power poles create a sense of encroachment for this Key View, thus limiting visible intactness to a moderate rating. Also, silt fencing is visible within foreground and middleground views, which contributes to encroaching features. Overall unity is moderately high. This Key View appears rural in nature. Although low density residential uses are located to the north and south of SR-74, mature ornamental landscaping screens these land uses from this Key View. The sloping topography to the north and the mature trees that are visibly encroaching upon SR-74 to the south create a canyon effect, which further unifies the appearance of this Key View. The color, texture, and massing of the mature ornamental landscaping increase the visible unity in this Key View.

Sources of light and glare within this Key View consist of headlights from travelers heading westbound on SR-74. No street lighting is present along SR-74 in LU3.

Proposed Project Features

Visible project features would appear similar in Alternatives 1 and 2. Development of Alternatives 1 and 2 would widen SR-74 to four lanes and introduce curb and gutter, one retaining wall, a new sidewalk to the south of SR-74, and both ornamental landscaping (to the south) and a native/non-native hydroseed mix along the hillsides to the north. The following is a description of the proposed retaining wall dimensions:

- Retaining Wall. 960 feet long (ranging from 8 to 24 feet in height) and located to the north of SR-74.

Changes to Visual Quality/Character

Upon implementation of Alternatives 1 and 2, visible project features would include the widened SR-74 and introduced retaining wall; refer to Figure 10b (Key View 5 – Proposed Condition). The project would widen SR-74, to the north and south, and would include curb and gutter, new sidewalk to the south of SR-74, ornamental landscaping, and one retaining wall. Visual changes to the quality and character at this Key View would be moderately high (resulting in an overall quality rating of 4 after implementation of the proposed project) unless avoided, minimized, or mitigated due to the increased developed appearance of the landscape.

The proposed retaining wall would increase the dominance of hardscape features and light reflectivity from the additional concrete (with the resultant radiant heat glare). With implementation of MM-6, aesthetic enhancements would be applied to the proposed retaining walls. Additionally, MM-2 would provide a vine treatment to the retaining wall structures, which would reduce the resultant light reflectivity. The aesthetic enhancements would increase the pedestrian scale environment and reduce the hardscape appearance of wall features. Additionally, all proposed hardscape features (i.e., walls, sidewalk, etc.) would include structural themes that would be similar in character to the surrounding environment (MM-6). All proposed architectural treatments for the structure elements of the project would be implemented in consultation with the Department District Landscape Architect during the Plans, Specifications, and Estimate (PS&E) phase (MM-5).

Although implementation of MM-2, MM-5, and MM-6 would reduce the developed appearance of the project and increase the pedestrian scale environment, the landscape would change from a rural landscape to a more suburban landscape. Therefore, the widened roadway would result in a moderately high change to the existing character/quality at this Key View.

Light and glare impacts from vehicles traveling along SR-74 would remain similar to the existing conditions.

Viewer Response

Three residential dwelling units to the north and south would have long duration views of the project features. Due to the low number of dwelling units at this portion of SR-74, viewer sensitivity to visual change would be moderately low for that viewer group. However, many travelers/commuters along SR-74 would be exposed to moderate

duration views of the project. Due to the moderate number of affected viewers, the overall viewer response to change would be moderate.

Resulting Visual Impact

Project improvements would have a moderately high affect on the existing views of the project from this Key View (rated difference of -1.3). Additionally, sensitive viewers would have a moderate viewer response to project changes. Therefore, changes would be considered moderately high after implementation of avoidance, minimization, and mitigation measures. The project would increase hardscape features within the area by widening the roadway and adding a large retaining wall and new sidewalk features. This increase in visible hardscape would have a moderately high increase the developed appearance of this rural landscape.

Implementation of MM-2, MM-5, and MM-6 pertaining to landscaping and aesthetic enhancement applied to the retaining wall would enhance the pedestrian and driver scale environments and reduce visible hardscape. Although these mitigation measures would reduce the moderately high visual impacts, the moderate viewer awareness would result in moderately high visual impacts from this Key View. Therefore, the visible change in character/quality at Key View 5 would result in moderately high impacts after implementation of MM-2, MM-5, and MM-6.

D. Summary of Project Impacts for Build Alternatives 1 and 2

Implementation of the proposed project would expose sensitive users to views of the project site. Upon implementation of the recommended avoidance, minimization, and mitigation measures, visual impacts would be reduced. However, as the changes to existing character/quality would be moderate and there are many viewers that would have a moderate to high viewer awareness of the project changes, project implementation would result in moderately low to moderately high visual impacts.

The following is a summary of resulting impacts for each Key View:

Key View 1. Introduced project features at Key View 1 would result in a moderate to moderately high change to character/quality and a high viewer response to that change. Both Build Alternatives 1 and 2 would include an increase in hardscape features and removal of existing vegetation. Alternative 1 would remove the existing meandering sidewalk, which currently contributes to a rural landscape within this suburban setting. Although implementation of Alternative 2 would replace the sidewalk, this new sidewalk would appear curvilinear to the proposed roadway. Therefore, although Alternative 2 replaces the sidewalk that would be removed, Alternative 2 does not decrease the developed appearance of the site.

With implementation of MM-7, the impacts associated with the replacement sidewalk (Alternative 2) would be reduced. Additionally, implementation of recommended MM-2, MM-3, and MM-6 for both Alternatives 1 and 2 would enhance the pedestrian and driver scale environment and reduce the appearance of hardscape. However, although these mitigation measures would reduce the moderate to moderately high visual impacts, the high viewer awareness of these impacts would result in a moderately high visual impact. Therefore, the visible change in character/quality at Key View 1 would remain moderately high for Alternative 1 and moderately high for Alternative 2.

Key View 2. Introduced project features at Key View 2 would result in a moderately high change to character/quality and a moderately high viewer response to that change. Changes would include an increase in hardscape features (retaining walls and the widened roadway) as well as removal of roadside vegetation. The proposed planting and aesthetic treatments would reduce the visible hardscape. Although, the visible change in character/quality at Key View 2 would be reduced with implementation of MM-2 and MM-6, Alternatives 1 and 2 would result in moderate visual impacts at this location.

Key View 3. Introduced project features at Key View 3 would result in a moderately low change to character/quality and a moderately high viewer response to that change. Changes would include an increase in hardscape features (one sound wall and the widened roadway) as well as removal of roadside vegetation.

The severity of the visible hardscape impacts from the soundwall would vary depending on what architectural treatments are implemented. The visible encroachment would be greater with the Sound Fighter® wall rather than the plexiglas soundwall. With implementation of MM-2 and MM-3 visible impacts from opaque wall structures would be reduced.

Although the viewer awareness of these impacts would be moderately high, the proposed planting and aesthetic treatments would reduce the moderate visual impacts and maintain the rural character of the community. Therefore, the visible change in character/quality at Key View 3 would be reduced to moderately low levels with implementation of MM-2 and MM-6.

Key View 4. Introduced project features at Key View 4 would result in a moderately high change to character/quality and a moderate viewer response to that change. Changes would include an increase in the appearance of hardscape features (introduced soundwall and retaining wall and the widened roadway) and the removal of hillside vegetation. Although MM-2 and MM-6 would reduce the possibility of adverse impacts, the moderate viewer awareness of these changes would result in moderately high visual impacts. Therefore, the visible change in character/quality at Key View 4 would remain moderately high after implementation of MM-2 and MM-6.

Key View 5. Introduced project features at Key View 5 would result in a moderately high change to character/quality and a moderate viewer response to that change. Changes would include increased hardscape features (new retaining wall, new sidewalk, and widened roadway) and the removal of mature vegetation to the south of SR-74. Although implementation of MM-2, MM-5, and MM-6 would reduce the impacts, the moderate viewer awareness of these changes would result in moderately high visual impacts. Therefore, the visible change in character/quality at Key View 5 would remain moderately high after implementation of MM-2, MM-5, and MM-6.

In general, the proposed project would result in temporary visual impacts from construction activities and permanent impacts from increased views to hardscape features, additional light reflectivity (with resultant radiant heat glare) from additional concrete, and the removal of ornamental landscaping and hillside vegetation.

Exposed surfaces, construction debris, equipment, and truck traffic may temporarily impact views adjacent to the site. These impacts are short-term and would cease upon

project completion. Construction-related visual impacts would be minimized by Caltrans Standard Specifications for Construction. These short-term impacts would result in moderately low impacts with implementation of Caltrans Standard Specifications for Construction.

The proposed project would introduce two new soundwalls (located at existing perimeter block walls) and five new retaining walls (for Alternative 1). Note that Alternative 2 would construct two additional retaining walls within the western project limits, in addition to those described above, for a total of seven new retaining walls. All proposed sound walls are anticipated to be a maximum of 16 feet in height and would range from 747 to 1,228 feet in length. The proposed retaining walls would range in height from 2 to 24 feet and would range in length from 100 to 960 feet. The surrounding community would experience visual impacts related to the dominant scale of the proposed wall features.

The severity of the visible hardscape impacts from the soundwall would vary depending on what architectural treatments are implemented. The visible encroachment would be greater with the Sound Fighter® wall rather than the plexiglas soundwall. With implementation of MM-2 and MM-3 pertaining to landscaping treatments, visible impacts from opaque wall structures would be reduced.

To maintain consistency with the existing infrastructure (i.e., walls, sidewalks, etc.) in the project area, architectural treatments for the structure elements of the project would be implemented in consultation with the Department District Landscape Architect during the PS&E phase (MM-5).

To mitigate visual impacts caused by the extensive large-scale walls, wall aesthetic enhancements would be developed as a theme treatment (i.e., terraced, color treatment, textural treatment, varying materials, etc.) for all new retaining walls and sound walls within the proposed project (MM-6). The visual simulations included in this Assessment represent standard wall treatments only, and are subject to change during the Project Report and early PS&E stage.

Alternative 2 would further increase dominance of hardscape features in the project area, compared to Alternative 1, as a result of the proposed retaining walls and the replacement sidewalk. With implementation of MM-6, aesthetic enhancement would be applied to the proposed retaining walls. The new sidewalk would also increase the developed appearance within the western project limits, as the sidewalk would appear similar in line pattern to the adjoining highway. Implementation of MM-7 would require aesthetic enhancements (i.e., color treatment, textural treatment, varying setbacks from the highway, use of material other than concrete, etc.) for the replacement sidewalk.

In addition, erosion control plant species utilized would be determined by the Department District Landscape Architect to ensure that the mix and application strategy is appropriate for the specific soil composition of the area (MM-1). To maintain the context of the adjacent communities (color, form, and texture), the project would install landscaping that is compatible with the existing landscaping along proposed wall features and adjoining hillsides (MM-2). New landscape would include trees (where feasible), shrub/groundcover mass planting, and vines on opaque soundwalls and/or retaining walls to soften the hardscape features and reduce the adverse environmental impacts (such as glare and radiant heat). All selected species within Department right-of-way would share

similar water requirements. The new landscape concept and plant palette would be determined in consultation with the Department District Landscape Architect during the PS&E stage.

All landscaping currently maintained by the City should be replaced with similar ornamental landscaping (MM-3). Trees that are removed should be replaced, where feasible. Where speeds are posted greater than 35 miles per hour, large trees (trees with trunks over four inches in diameter when mature) would be placed outside the clear recovery zone (30 feet from the travel lane for speeds posted above 35 mph). Small trees (trees with trunks four inches in diameter or less when mature) would be used to replace the trees within the clear recovery zone. Tree spacing for small trees can be adjusted to account for the removal of existing mature trees.

Lastly, all utilities that are to be moved should be placed underground, where feasible, in coordination with the Department and the City (MM-4). With implementation of MM-4, the resultant visual impacts from development encroaching onto the rural landscape would be reduced.

Although implementation of MM-1 through MM-6 (and MM-7 for Alternative 2 only) would reduce visual impacts, impacts associated with the increased developed appearance of the project site within a suburban/rural landscape would vary from moderately low to moderately high. Viewer sensitivity within the project area would range from a moderate to high viewer awareness of the project changes. Therefore, as there would be moderate to high viewer awareness and the changes to existing character/quality would be moderately high along certain areas of the project, project implementation would result in overall moderately high visual impacts associated with the increased developed appearance of the project site.

E. Cumulative Impacts

Construction of currently approved and pending projects in the vicinity would permanently alter the nature and appearance of the area through the decrease in the visible rural landscape. As development occurs throughout the project area, residents and travelers in the area would notice the visual effects of increased development. However, the resultant visual/aesthetic impacts is difficult to determine, since aesthetic value is subjectively determined and potential impacts are site-specific. With implementation of Caltrans Standard Specifications for Construction, cumulative construction impacts would be reduced; however, impacts resulting from increased development would remain moderate.

Development of the proposed roadway widening, the proposed SR-74 County widening project located to the east of the City/County line, as well as other local projects would result in a decrease in rural visual resources. With the implementation of MM-1 through MM-6, on-site impacts pertaining to cumulative development would be reduced. Ornamental landscaping and hillside vegetation would be installed in a manner that is similar to surrounding development, and environmental impacts associated with the increased hardscape proposed by the project site would be reduced to the extent feasible (MM-2, MM-3, and MM-6). All structural features within the project site would appear similar in nature to surrounding development (MM-5 and MM-6) to the extent feasible.

Cumulative project impacts resulting from the project site would be reduced with the implementation of recommended Mitigation Measures MM-1 through MM-6. However, cumulative impacts would remain as a result of increased hardscape features and the decrease in the visible rural landscape. Therefore, these impacts would remain moderately high following implementation of recommended mitigation measures.

VII. VISUAL MITIGATION

The Department and FHWA mandate that a qualitative/aesthetic approach be taken to avoid and minimize visual quality loss in the project area. This approach fulfills the letter and the spirit of FHWA requirements because it addresses the actual cumulative loss of visual quality that would occur in the project viewshed when the project is implemented. It also constitutes avoidance and minimization efforts that can increase public acceptance of the project.

Visual avoidance, minimization, and mitigation for the possibility of adverse project impacts addressed in the Key View assessments and summarized in the previous section would consist of adhering to the following design requirements in cooperation with the Department District Landscape Architect. The requirements are arranged by project feature and include design options in order of effectiveness. All visual avoidance, minimization, and mitigation would be designed and implemented with the concurrence of the Department District Landscape Architect.

- MM-1 Erosion control seed species shall be determined by the Department District Landscape Architect to ensure that the mix and application strategy is appropriate for the specific soil composition of the area.
- MM-2 To maintain the context of the adjacent communities (color, form, and texture), the project shall install landscaping that is compatible with the existing landscaping along proposed wall features and adjoining hillsides. Landscape shall include trees (where feasible), shrub/groundcover mass planting, and vines on opaque soundwalls and/or retaining walls to soften the hardscape features and reduce the possibility of adverse environmental impacts (such as glare and radiant heat). All selected species within Department right-of-way shall share similar water requirements. The new landscape concept and plant palette shall be determined in consultation with the Department District Landscape Architect during the Project Report stage.
- MM-3 All landscaping currently maintained by the City shall be replaced with similar landscaping. Trees that are removed shall be replaced where feasible. Where speeds are posted greater than 35 miles per hour, large trees (trees with trunks over four inches in diameter when mature) shall be placed outside the clear recovery zone (30 feet from the travel lane). Small trees (trees with trunks four inches in diameter or less when mature) shall be used to replace the trees within the clear recovery zone. Tree spacing for small trees can be adjusted to account for the removal of existing mature trees.
- MM-4 All utilities that are to be moved shall be placed underground, where feasible, in coordination with the Department and the City.
- MM-5 To maintain consistency with the existing infrastructure (i.e., walls, sidewalks, etc.) in the project area, architectural treatments for the structure elements of the project

shall be determined in consultation with the Department District Landscape Architect during the Plans, Specifications, and Estimate (PS&E) phase.

MM-6 To minimize visual impacts caused by the extensive large-scale walls, wall aesthetic enhancement shall be developed as a theme treatment (i.e., terraced, color treatment, textural treatment, varying materials, etc.) for all new retaining walls and sound walls within the proposed project. Structural themes (i.e., walls, sidewalk, etc.) shall be similar in character to the surrounding environment. The visual simulations included in this Visual Impact Assessment represent standard wall treatments only, and are subject to change during the Project Report and early PS&E stages of the project.

MM-7 To minimize visual impacts caused by the replacement sidewalk, aesthetic enhancements shall be implemented (i.e., color treatment, textural treatment, varying setbacks from the highway, use of material other than concrete, etc.) for the replaced sidewalk, in accordance with MM-6.

VIII. REFERENCES

City of San Juan Capistrano, *San Juan Capistrano General Plan*, dated December 14, 1999.

U.S.D.O.T., Federal Highway Administration, Office of Environmental Policy, Visual Impact Assessment for Highway Projects, March 1981.

Southern California Association of Governments, Final 2004 Regional Transportation Improvement Program, Project Listing Volume III of III.



LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
 DISTRICT 12-ORA-74
 PM 10/1.9 • EA: 086900

Regional Location

 not to scale

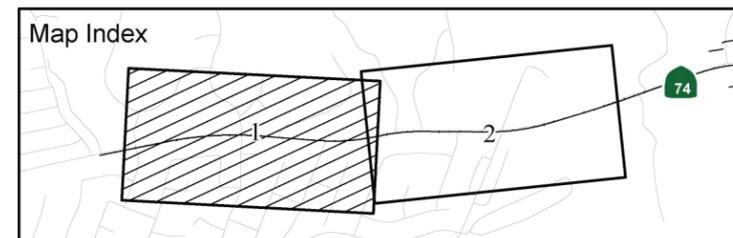
Figure 1



Source: Air Photo USA (2007), HDR Engineering (2007),
City of San Juan Capistrano (2008), Thomas Bros (2007).

LEGEND

- | | |
|---------------------------|--|
| — Project Improvements | — Proposed Retaining Wall (Only represented in Alt. 2) |
| — TCE (Chain Link Fence) | - - - Proposed Right-of-Way |
| — Drainage | — Existing Right-of-Way |
| — Proposed Retaining Wall | □ City Boundary |
| — Proposed Sound Wall | |



5/14/08 JN10-106221-14877 MAS

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
DISTRICT 12-ORA-74
PM 10/1.9 • EA: 086900

Project Location Map

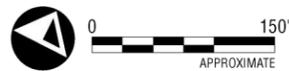
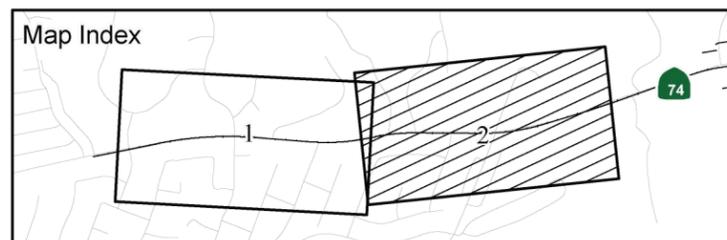
Figure 2a



Source: Air Photo USA (2007), HDR Engineering (2007),
City of San Juan Capistrano (2008), Thomas Bros (2007).

LEGEND

- | | |
|---------------------------|--|
| — Project Improvements | — Proposed Retaining Wall (Only represented in Alt. 2) |
| — TCE (Chain Link Fence) | - - - Proposed Right-of-Way |
| — Drainage | — Existing Right-of-Way |
| — Proposed Retaining Wall | — City Boundary |
| — Proposed Sound Wall | |



5/14/08 JN10-106221-14877 MAS

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
DISTRICT 12-ORA-74
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Project Location Map

Figure 2b

NOTES:

1. FOR COMPLETE RIGHT-OF-WAY AND ACCURATE ACCESS DATA, SEE RIGHT-OF-WAY RECORD MAPS AT DISTRICT OFFICE
2. REFER TO THE TITLE SHEET FOR SURVEY CONTROL NOTES.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	74	1.0/3.0	11	200

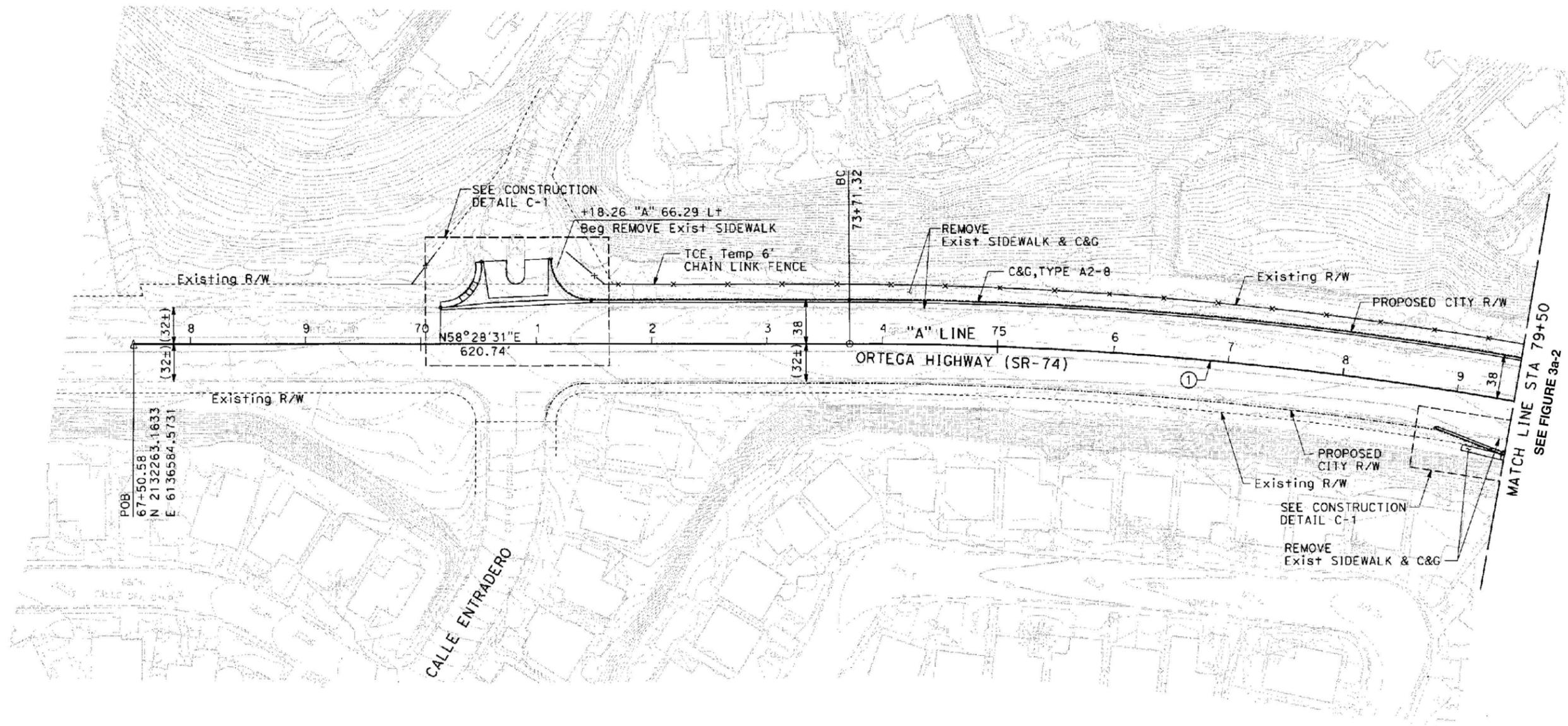
REGISTERED CIVIL ENGINEER DATE _____

PLANS APPROVAL DATE _____

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HDR HDR Engineering, Inc.
3230 El Camino Real, Suite 200
Irvine, CA 92602

REGISTERED PROFESSIONAL ENGINEER
BRUCE A. SCHMITH
No. C 65551
Exp. 9-30-07
CIVIL
STATE OF CALIFORNIA



CURVE DATA				
NO.	R	Δ	T	L
①	3350.00	15°44'42.76"	463.22	920.60



4/14/08 JN 10-106221-14877 MAS

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
DISTRICT 12-ORA-74
PM 10/1.9 • EA: 086900

Site Plan • Alternative 1 • Sec 1

Figure 3a-1

NOTES:

1. FOR COMPLETE RIGHT-OF-WAY AND ACCURATE ACCESS DATA, SEE RIGHT-OF-WAY RECORD MAPS AT DISTRICT OFFICE
2. REFER TO THE TITLE SHEET FOR SURVEY CONTROL NOTES.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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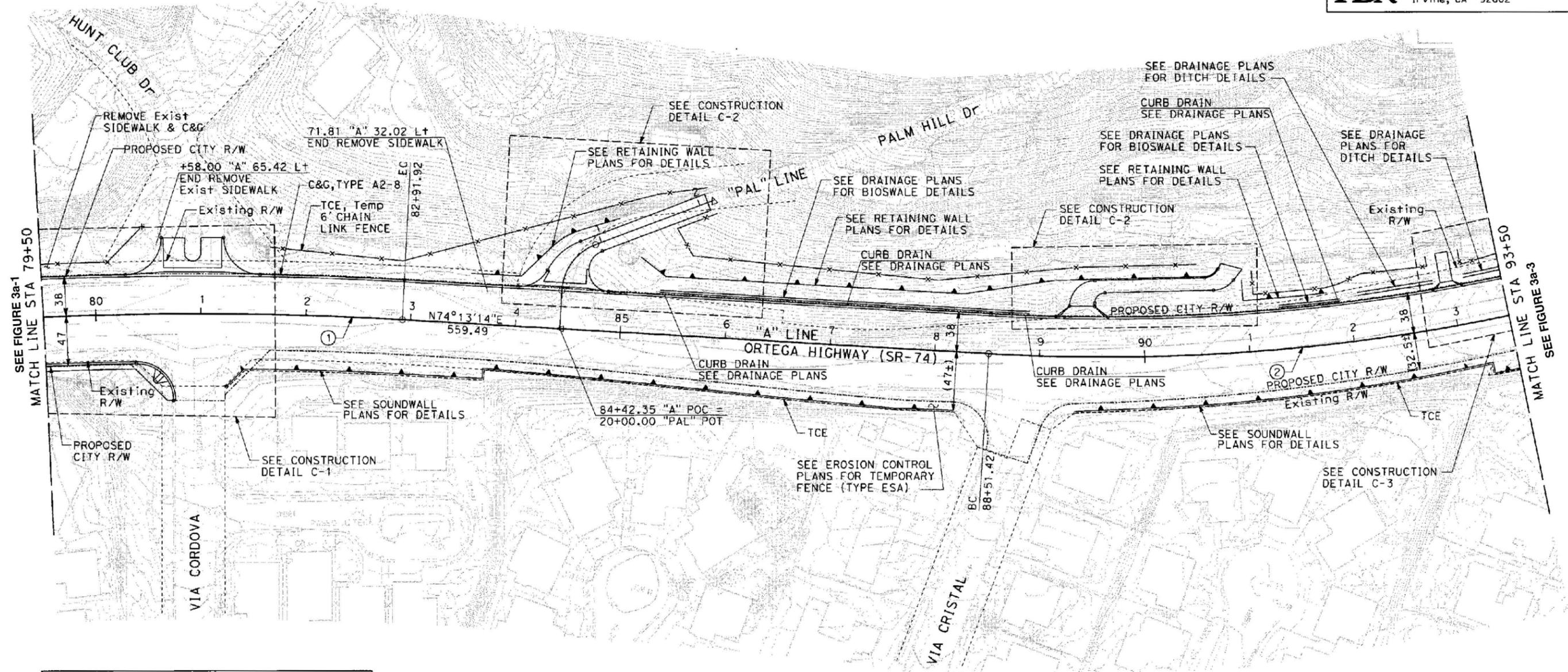
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Exp. 9-30-07
CIVIL
STATE OF CALIFORNIA



NO.	R	Δ	T	L
①	3350.00	15°44'42.76"	463.22	920.60
②	1900.00	15°13'37.47"	253.97	504.95

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
DISTRICT 12-ORA-74
PM 10/1.9 • EA: 086900

Site Plan • Alternative 1 • Sec. 2

Figure 3a-2



NOTES:

1. FOR COMPLETE RIGHT-OF-WAY AND ACCURATE ACCESS DATA, SEE RIGHT-OF-WAY RECORD MAPS AT DISTRICT OFFICE
2. REFER TO THE TITLE SHEET FOR SURVEY CONTROL NOTES.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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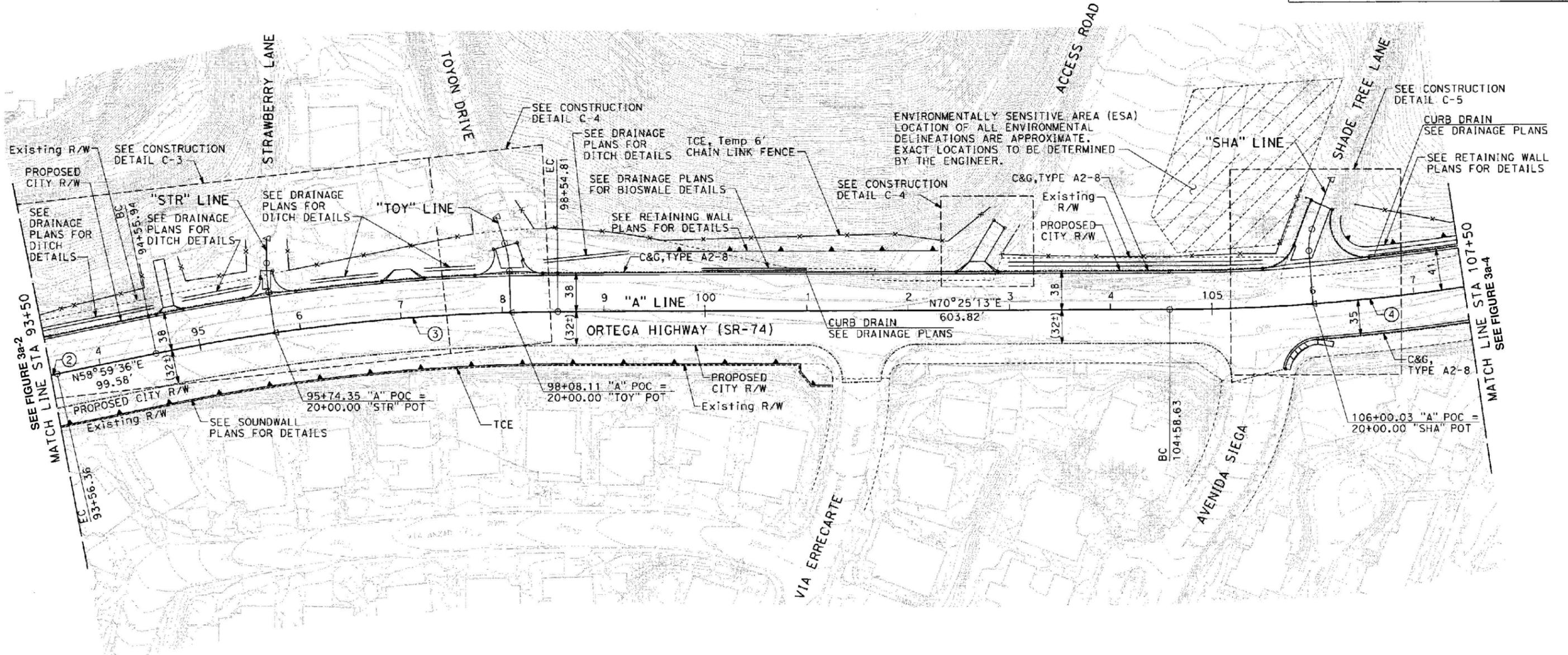
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PLANS APPROVAL DATE _____

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 Exp. 9-30-07
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 STATE OF CALIFORNIA

HDR HDR Engineering, Inc.
 3230 El Camino Real, Suite 200
 Irvine, CA 92602



CURVE DATA				
NO.	R	Δ	T	L
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③	2000.00	11°25'36.68"	200.10	398.87
④	2000.00	17°21'33.05"	305.31	605.95



4/14/08 JN 10-106221-14877 MAS

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 DISTRICT 12-ORA-74
 PM 10/1.9 • EA: 086900

Site Plan • Alternative 1 • Sec. 3

Figure 3a-3

NOTES:

1. FOR COMPLETE RIGHT-OF-WAY AND ACCURATE ACCESS DATA, SEE RIGHT-OF-WAY RECORD MAPS AT DISTRICT OFFICE
2. REFER TO THE TITLE SHEET FOR SURVEY CONTROL NOTES.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	74	1.0/3.0	14	200

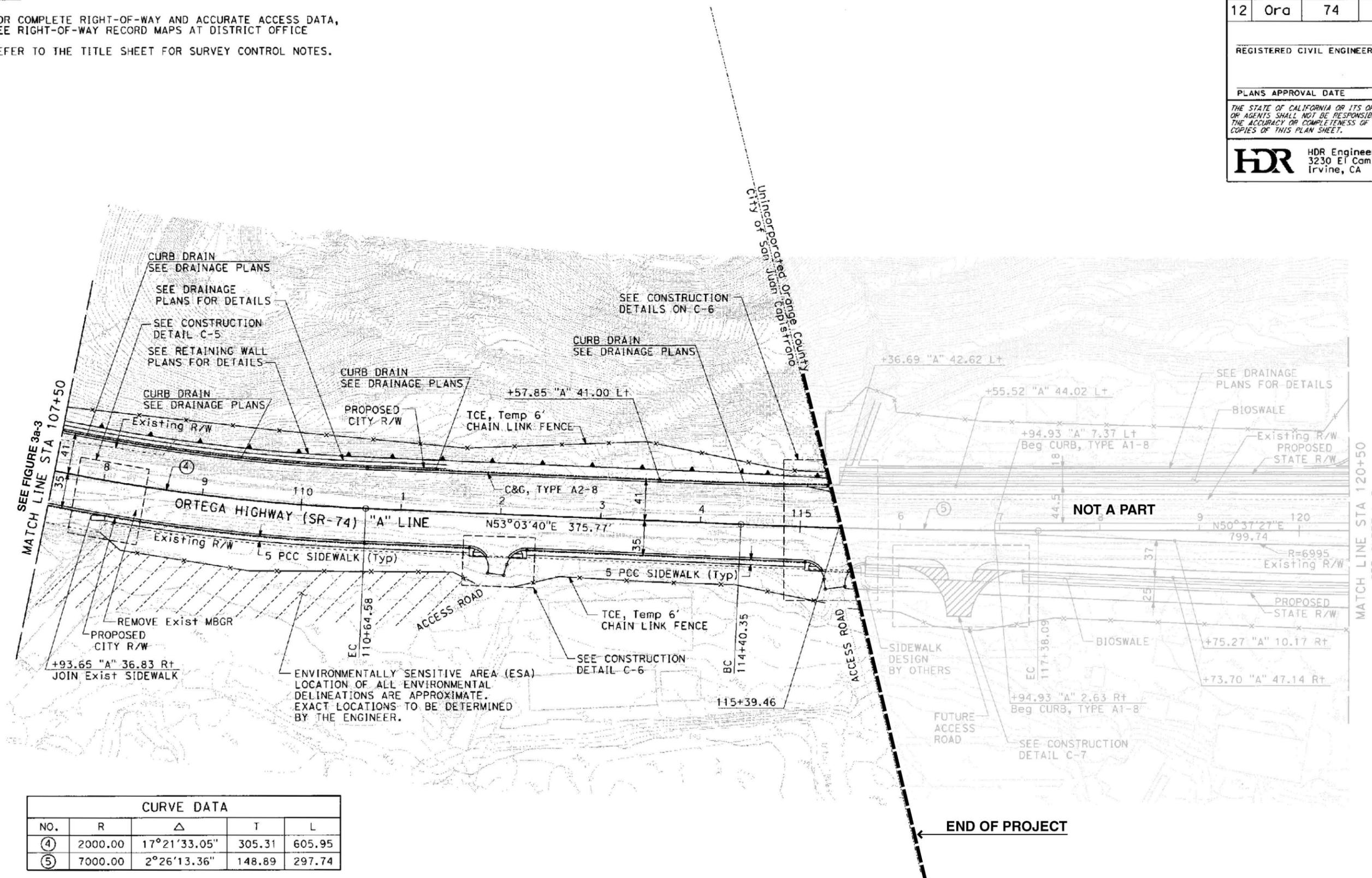
REGISTERED CIVIL ENGINEER DATE _____

PLANS APPROVAL DATE _____

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Exp. 9-30-07
CIVIL
STATE OF CALIFORNIA



CURVE DATA				
NO.	R	Δ	T	L
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⑤	7000.00	2°26'13.36"	148.89	297.74



4/14/08 JN 10-106221-14877 MAS

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DISTRICT 12-ORA-74
PM 10/1.9 • EA: 086900

Site Plan • Alternative 1 • Sec. 4

Figure 3a-4

NOTES:

1. FOR COMPLETE RIGHT-OF-WAY AND ACCURATE ACCESS DATA, SEE RIGHT-OF-WAY RECORD MAPS AT DISTRICT OFFICE
2. REFER TO THE TITLE SHEET FOR SURVEY CONTROL NOTES.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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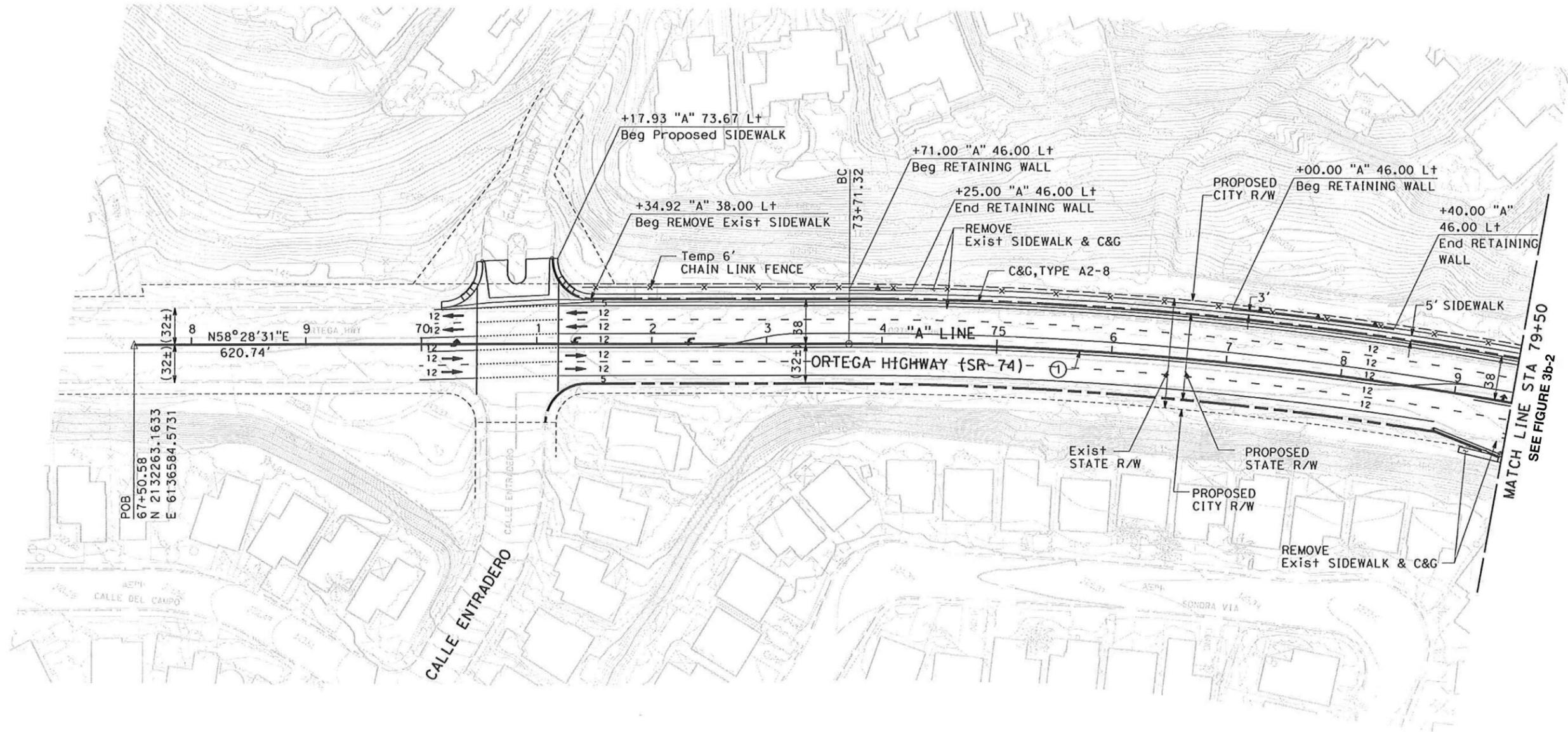
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 LIEM ANH NGUYEN
 No. C 70728
 Exp 6-30-09
 CIVIL
 STATE OF CALIFORNIA

HDR HDR Engineering, Inc.
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 Irvine, CA 92602



CURVE DATA				
NO.	R	Δ	T	L
①	3350.00	15°44'42.76"	463.22	920.60



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 DISTRICT 12-ORA-74
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Site Plan • Alternative 2 • Sec 1

Figure 3b-1

NOTES:

1. FOR COMPLETE RIGHT-OF-WAY AND ACCURATE ACCESS DATA, SEE RIGHT-OF-WAY RECORD MAPS AT DISTRICT OFFICE
2. REFER TO THE TITLE SHEET FOR SURVEY CONTROL NOTES.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	74	1.08/1.94		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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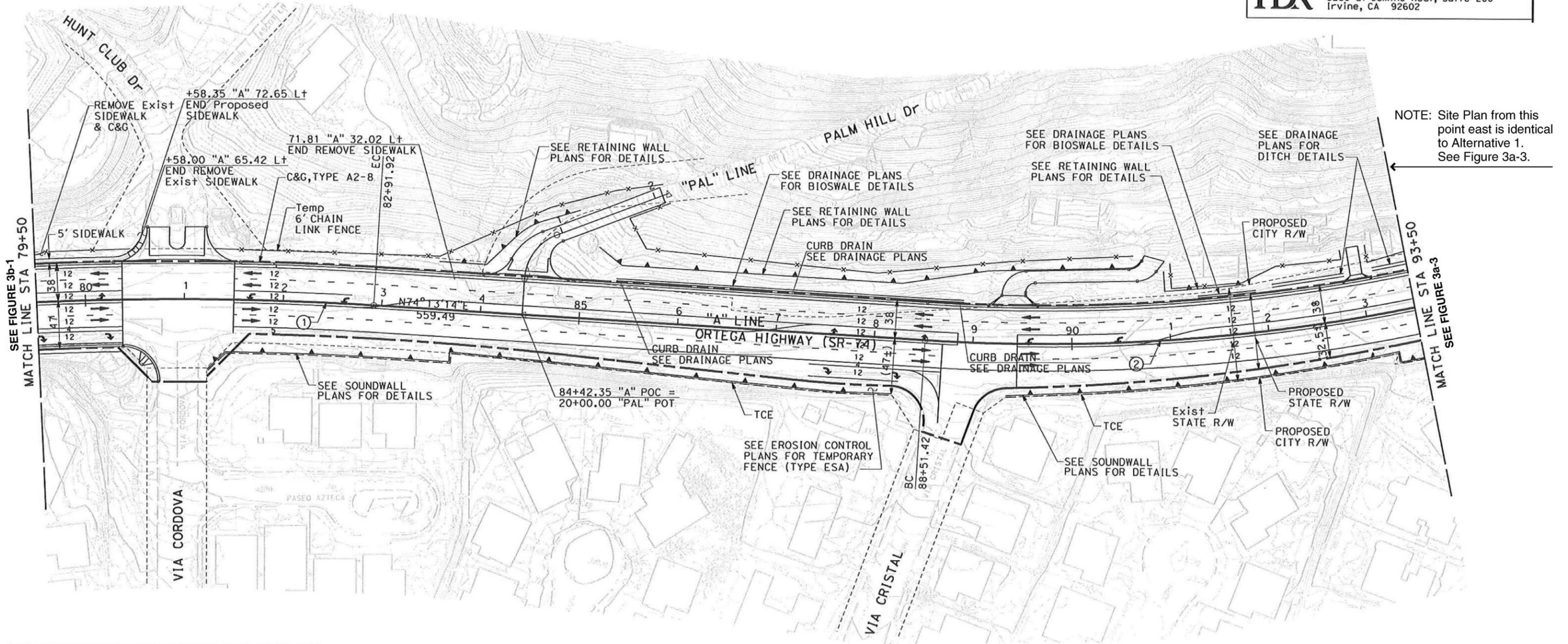
LIEM ANH NGUYEN

No. C 70728

Exp: 6-30-09

CIVIL

STATE OF CALIFORNIA



CURVE DATA				
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②	1900.00	15°13'37.47"	253.97	504.95

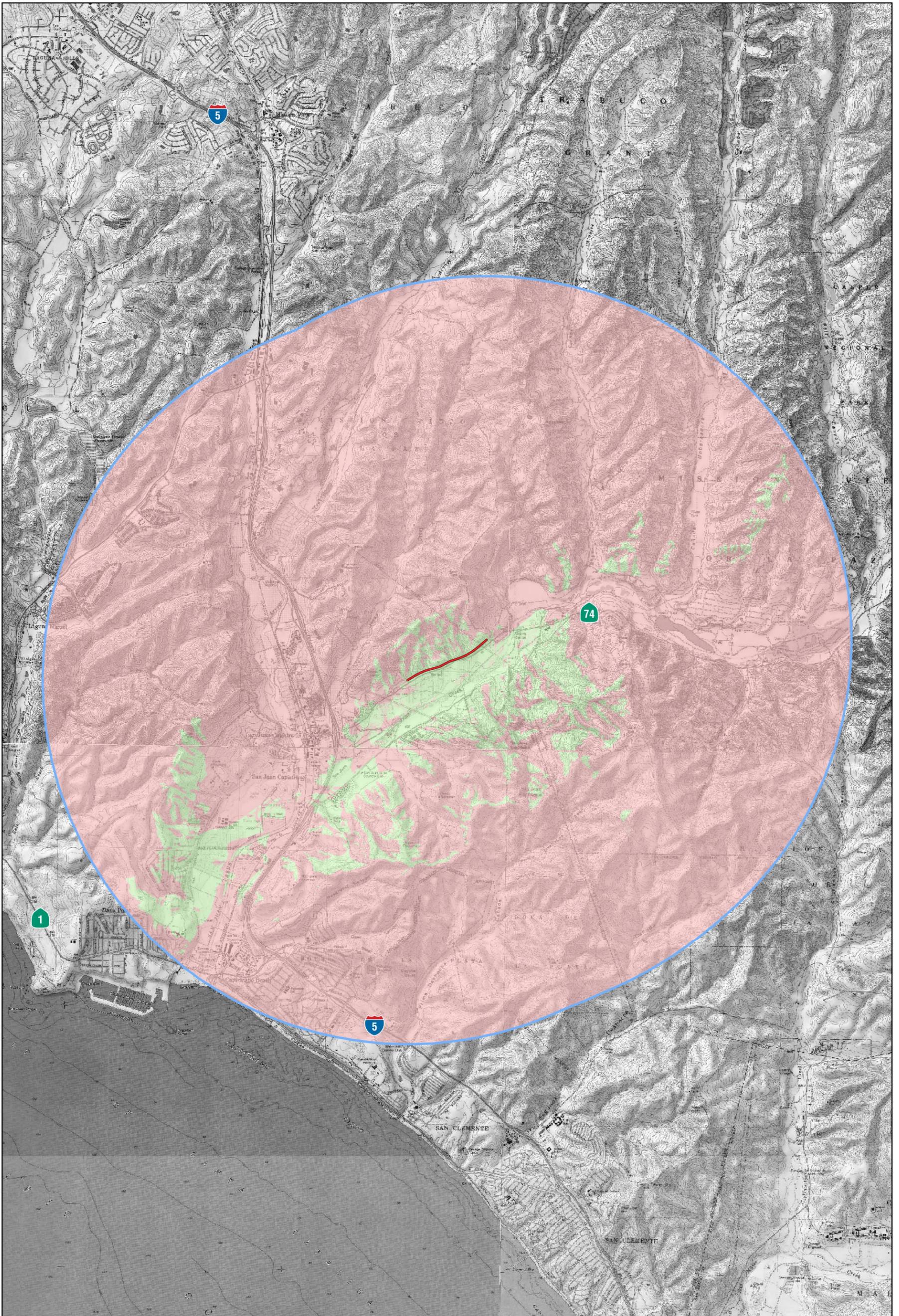


4/14/08 JN 10-106221-14877 MAS

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
DISTRICT 12-ORA-74
PM 10/1.9 • EA: 086900

Site Plan • Alternative 2 • Sec 2

Figure 3b-2



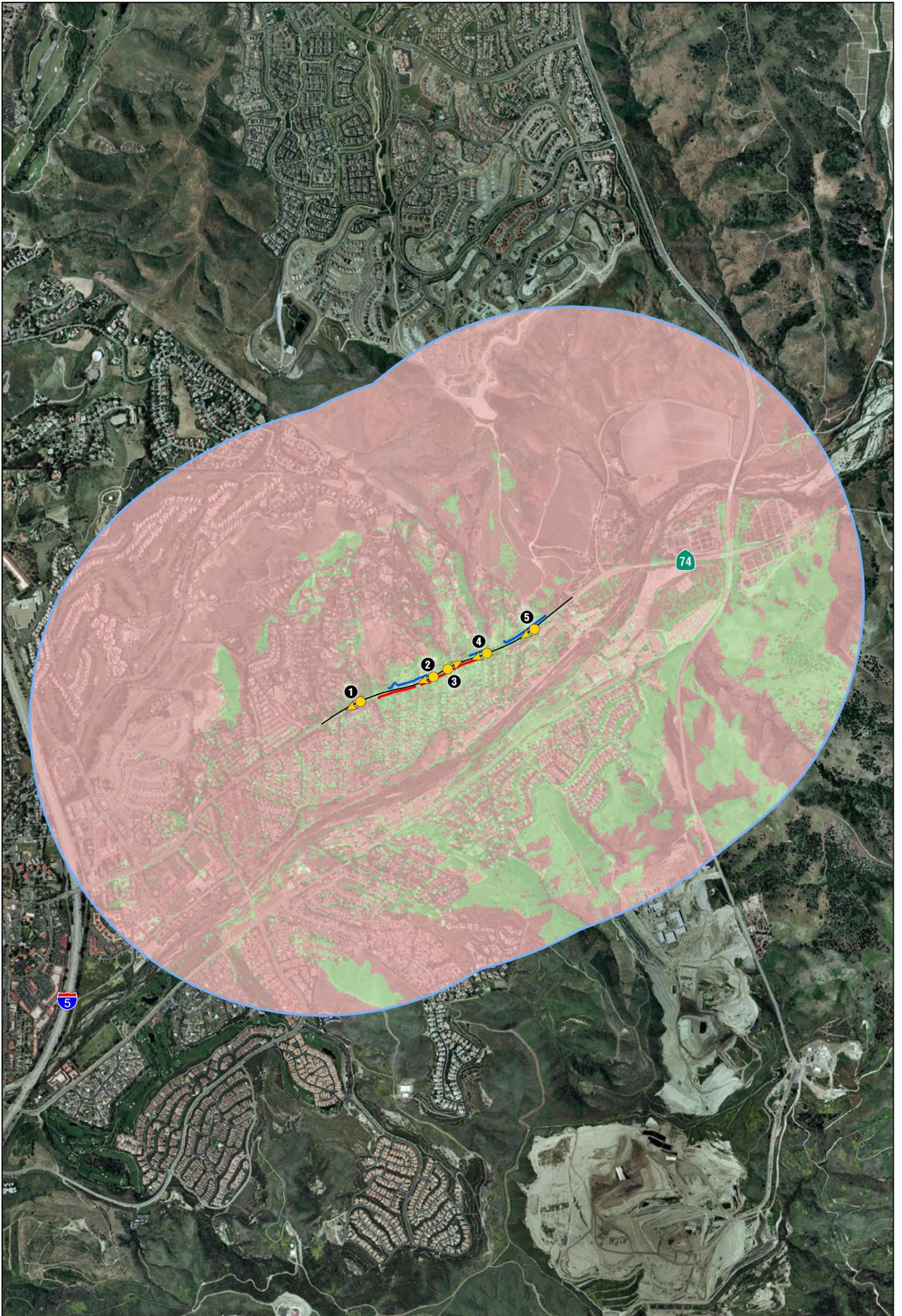
Source: USGS Topographic Disc

- Project Centerline
- Three-Mile Project Vicinity
- Project Site Not Visible
- Project Site Visible

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
 DISTRICT 12-ORA-74
 PM 10/1.9 • EA: 086900

Viewshed Map





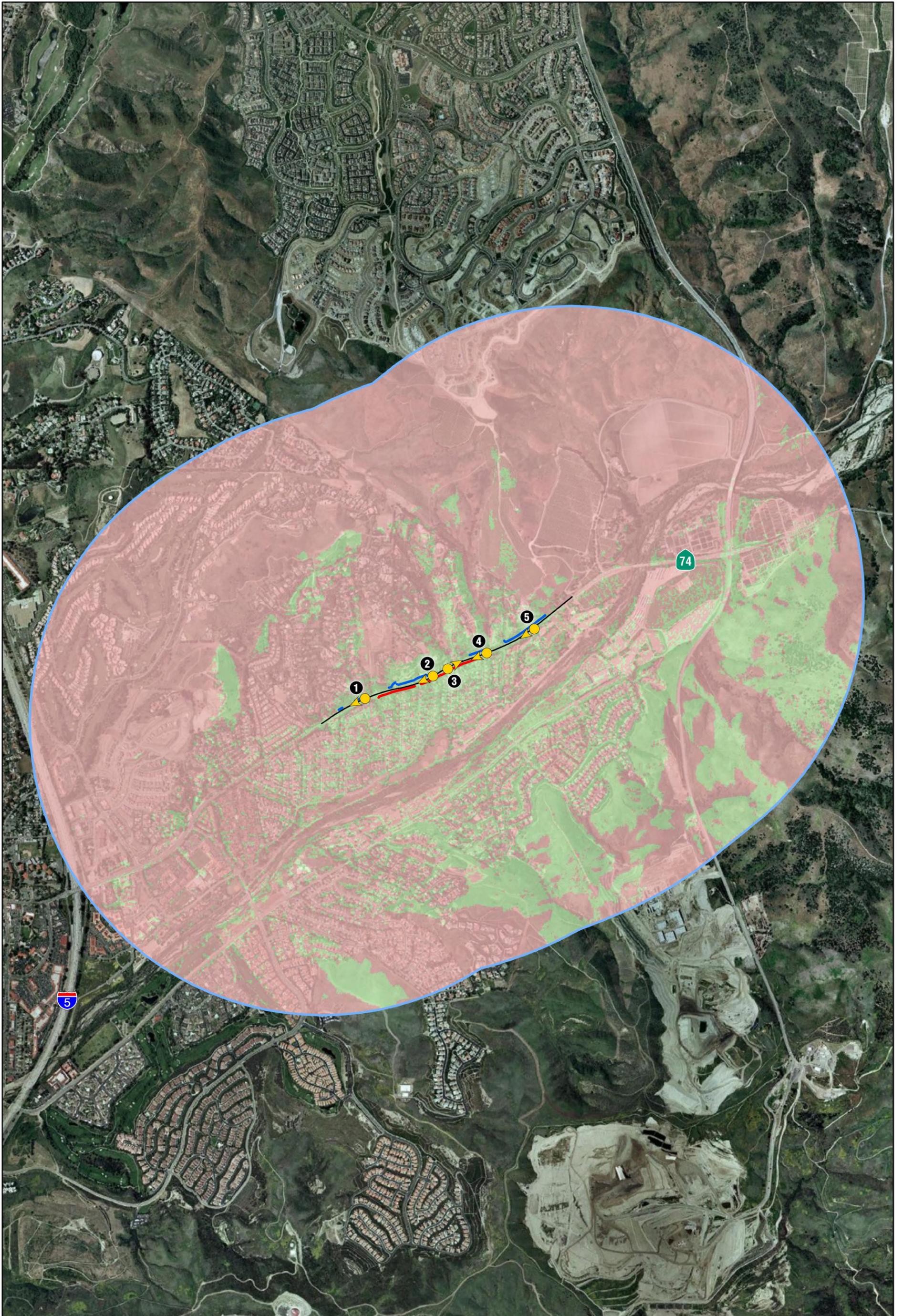
Source: ESRI Online Imagery

- ▲ Direction of Photo
- View Point Location
- ① View Point Number
- Project Centerline
- Retaining Wall
- Sound Wall
- One-Mile Project Vicinity
- Project Site Not Visible
- Project Site Visible

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
DISTRICT 12-ORA-74
PM 10/1.9 • EA: 086900



Key View Location Map • Alternative 1



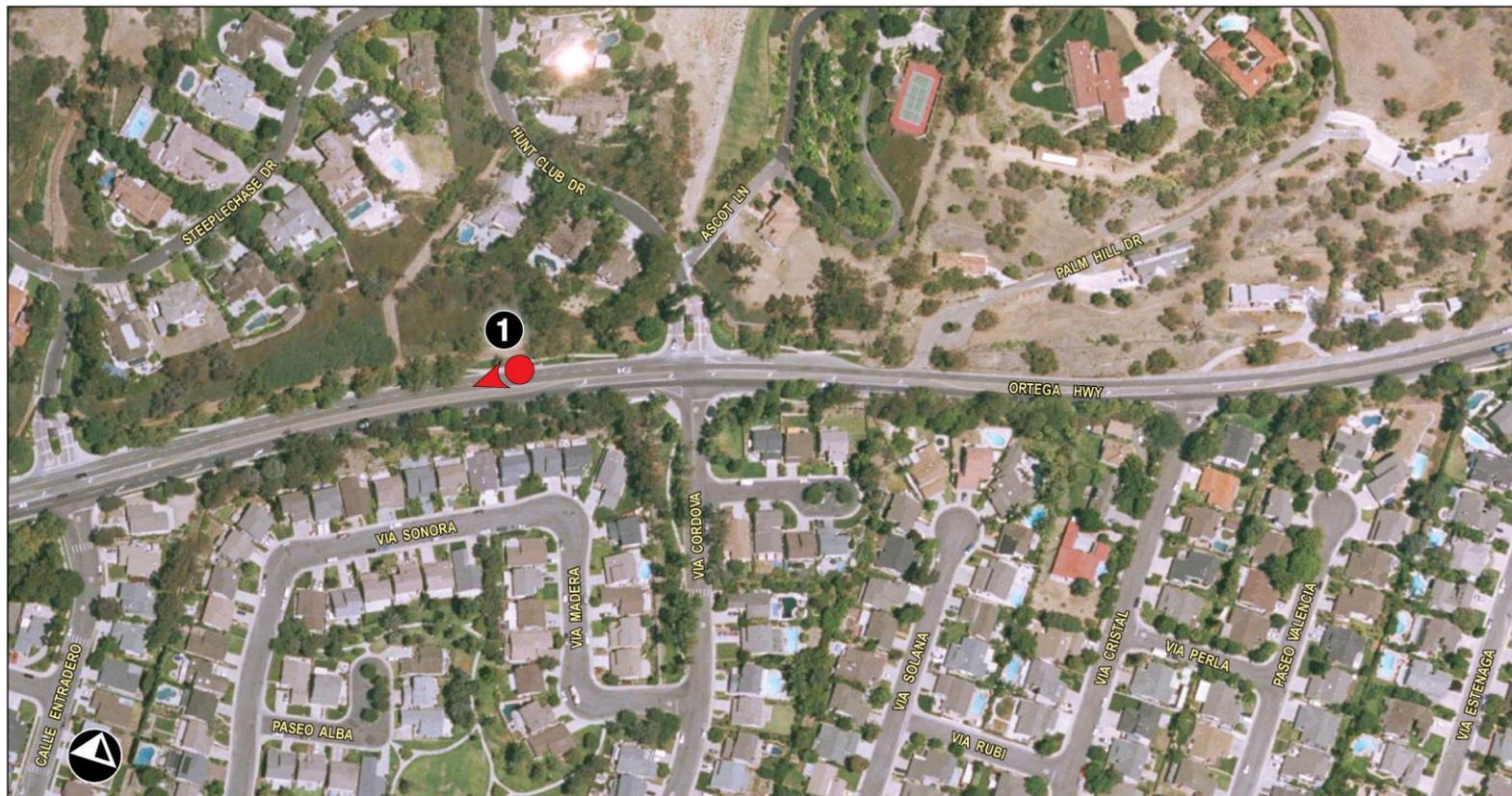
Source: ESRI Online Imagery

- ▲ Direction of Photo
- View Point Location
- ① View Point Number
- Project Centerline
- Retaining Wall
- Sound Wall
- One-Mile Project Vicinity
- Project Site Not Visible
- Project Site Visible

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PM 10/1.9 • EA: 086900

Key View Location Map • Alternative 2





-  Direction of Photo
-  Viewpoint Location
-  Viewpoint Number

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
 DISTRICT 12-ORA-74
 PM 10/1.9 • EA: 086900

Key View 1 Existing Condition



Alternative 1



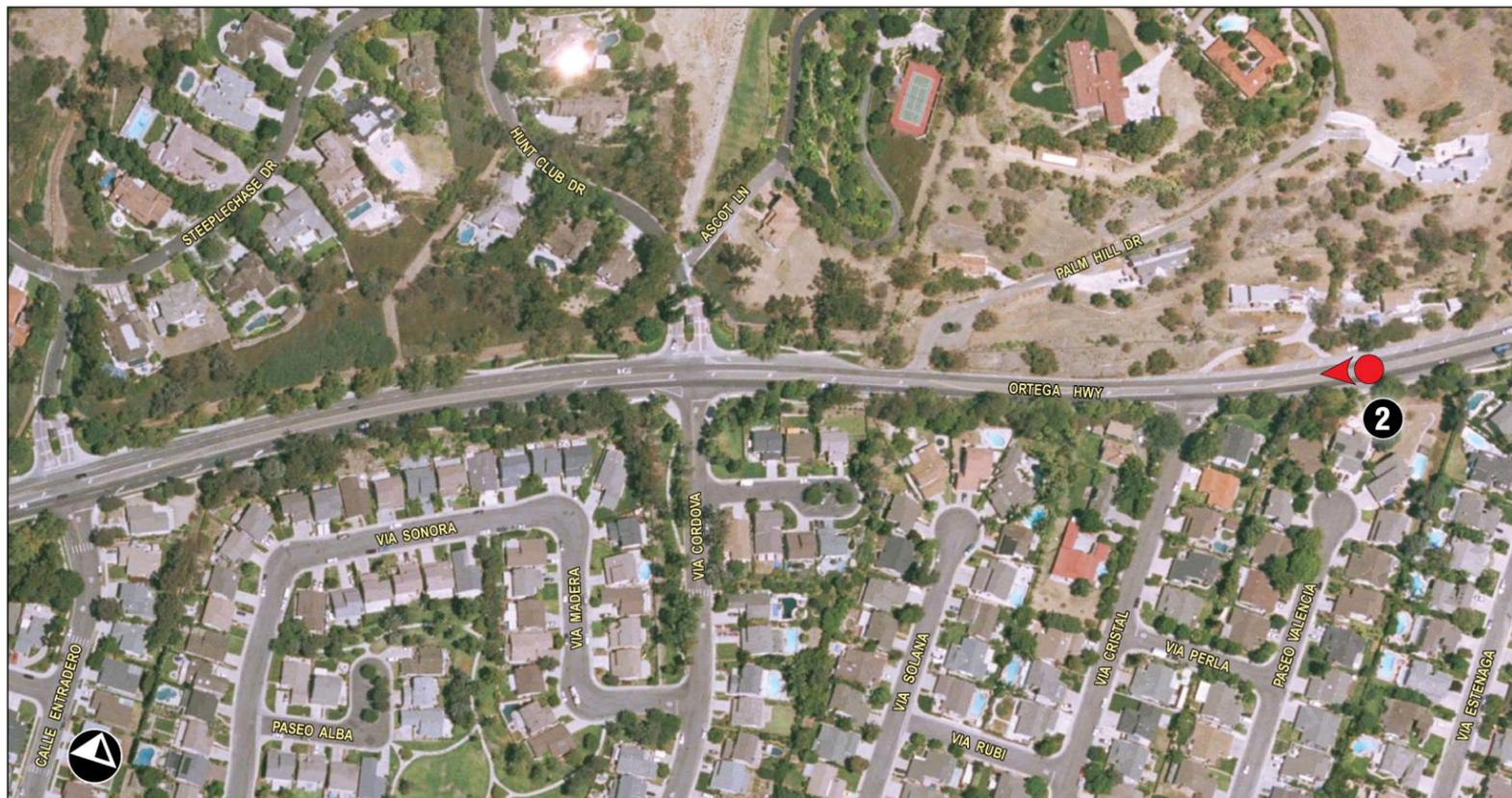
Alternative 2



- Direction of Photo
- Viewpoint Location
- Viewpoint Number
- Project Improvements
- TCE (Chain Link Fence)
- Drainage
- Proposed Retaining Wall
- Proposed Sound Wall
- Proposed Retaining Wall (Only represented in Alt. 2)
- Proposed Right-of-Way
- Existing Right-of-Way
- City Boundary

For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader information on the form, size, and scale of the proposed improvements within the project area. Specific project design features are subject to change during the plans, specifications, and estimates (PS&E) phase for the project.

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA DISTRICT 12-ORA-74 • PM 10/1.9 • EA: 086900
Key View 1 • Proposed Condition



-  Direction of Photo
-  Viewpoint Location
-  Viewpoint Number

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
 DISTRICT 12-ORA-74
 PM 10/1.9 • EA: 086900

Key View 2 Existing Condition



Alternatives 1 and 2



-  Direction of Photo
-  Viewpoint Location
-  Viewpoint Number
-  Project Improvements
-  TCE (Chain Link Fence)
-  Drainage
-  Proposed Retaining Wall
-  Proposed Sound Wall
-  Proposed Retaining Wall (Only represented in Alternative 2)
-  Proposed Right-of-Way
-  Existing Right-of-Way
-  City Boundary

For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader information on the form, size, and scale of the proposed improvements within the project area. Specific project design features are subject to change during the plans, specifications, and estimates (PS&E) phase for the project.

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
 DISTRICT 12-ORA-74
 PM 10/1.9 • EA: 086900
Key View 2
Proposed Condition



-  Direction of Photo
-  Viewpoint Location
-  Viewpoint Number

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
 DISTRICT 12-ORA-74
 PM 10/1.9 • EA: 086900

Key View 3 Existing Condition



Alternatives 1 and 2 • Architectural Treatment A



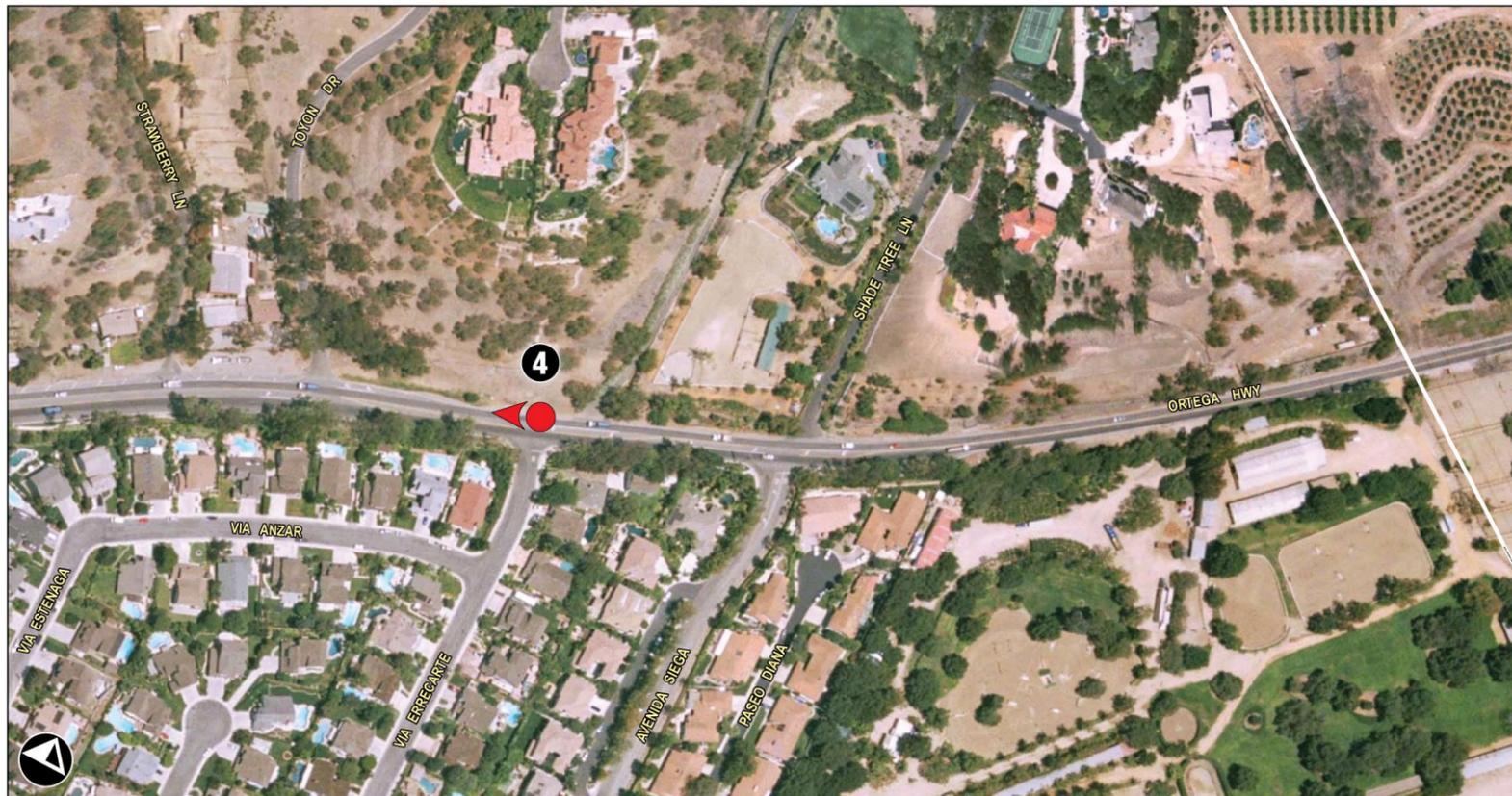
Alternatives 1 and 2 • Architectural Treatment B



-  Direction of Photo
-  Viewpoint Location
-  Viewpoint Number
-  Project Improvements
-  TCE (Chain Link Fence)
-  Drainage
-  Proposed Retaining Wall
-  Proposed Sound Wall
-  Proposed Right-of-Way
-  Existing Right-of-Way
-  City Boundary

For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader information on the form, size, and scale of the proposed improvements within the project area. Specific project design features are subject to change during the plans, specifications, and estimates (PS&E) phase for the project.

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
DISTRICT 12-ORA-74 • PM 10/1.9 • EA: 086900
Key View 3 • Proposed Condition



-  Direction of Photo
-  Viewpoint Location
-  Viewpoint Number

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
 DISTRICT 12-ORA-74
 PM 10/1.9 • EA: 086900

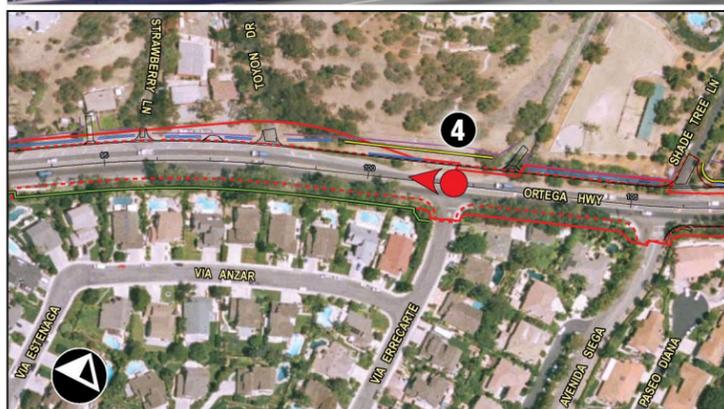
Key View 4 Existing Condition



Alternatives 1 and 2 • Architectural Treatment A



Alternatives 1 and 2 • Architectural Treatment B



- Direction of Photo
- Viewpoint Location
- Viewpoint Number
- Project Improvements
- TCE (Chain Link Fence)
- Drainage
- Proposed Retaining Wall
- Proposed Sound Wall
- Proposed Right-of-Way
- Existing Right-of-Way
- City Boundary

For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader information on the form, size, and scale of the proposed improvements within the project area. Specific project design features are subject to change during the plans, specifications, and estimates (PS&E) phase for the project.

Alternatives 1 and 2 • Architectural Treatment B
 LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
 DISTRICT 12-ORA-74 • PM 10/1.9 • EA: 086900
Key View 4 • Proposed Condition



-  Direction of Photo
-  Viewpoint Location
-  Viewpoint Number

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
 DISTRICT 12-ORA-74
 PM 10/1.9 • EA: 086900

Key View 5 Existing Condition

Figure 10a



-  Direction of Photo
-  Viewpoint Location
-  Viewpoint Number
-  Project Improvements
-  TCE (Chain Link Fence)
-  Drainage
-  Proposed Retaining Wall
-  Proposed Sound Wall
-  Proposed Right-of-Way
-  Existing Right-of-Way
-  City Boundary

Alternatives 1 and 2

For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. These simulations are subject to change and are intended to provide the reader information on the form, size, and scale of the proposed improvements within the project area. Specific project design features are subject to change during the plans, specifications, and estimates (PS&E) phase for the project.

LOWER STATE ROUTE 74 ORTEGA HIGHWAY WIDENING • VIA
 DISTRICT 12-ORA-74
 PM 10/1.9 • EA: 086900

**Key View 5
 Proposed Condition**

APPENDIX

A) Visual Quality Evaluation Forms

Visual Quality Evaluation – View From The Road

Project Name: Lower SR-74 Ortega Highway Widening	Evaluator: Kristen Bogue, CEI	Evaluation Scale: 1 – 7
Assessment Unit: Urban Low Density Residential (LU1)	Date: 3/13/2008	1 = Very Low
	Weather: Sunny and Clear	4 = Medium 7 = Very High

View		Visual Quality							Impact			
Key View	Proposed / Existing	General Visual Quality	Vividness		Intactness		Unity		(V+I+U) / 3 = Q	Visual Quality Difference	Positive Impact	Negative Impact
			Overall Vividness	Features	General Intactness	Encroachment	Overall Unity	Elements				
1	E	7	7	Travelers along westbound SR-74 have views a two-lane highway, a meandering sidewalk on both sides of the roadway, and an equestrian trail to the north of the roadway. The existing color contrast between the trees, shrubs, and grasses is vivid and also contrasts to the light colored sidewalks and roadway.	7	Intactness appears to be high as the visible encroachment in this Key View is low. Although residential development exists in the area, the mature ornamental landscaping, meandering sidewalks, and the equestrian trail permit this Key View to remain rural in nature although development is present.	7	Overall unity is high. Although developed uses are present in this landscape unit, this Key View remains visibly rural in nature, similar to the surrounding area. This particular landscape unit provides a transition from the rural landscape to the east with the developed landscape further to the west.	7			
	P Alt.1	6	6	Travelers along westbound SR-74 have views a four-lane highway, ornamental landscaping, and an equestrian trail to the north of the roadway. The color contrast between the trees, shrubs, and grasses remains vivid and also contrasts to the lighter colored sidewalks and roadway. However, the contrasting features of the meandering sidewalk to the curvilinear roadway are no longer afforded.	6	Intactness appears to be moderately high. The visible encroachment has increased as a result of the widened roadway. Proposed ornamental landscaping, similar in kind, appears to soften the increase in hardscape features. Additionally, the equestrian trail reduces the appearance of encroachment.	6	Although the widened roadway appears more developed in appearance, the overall unity appears moderately high. This particular landscape unit allows for a slightly more suburban landscape, as the developed landscape to the west also appears suburban in nature.	6	-1.0	0	3
	P Alt.2	6	6	Travelers along westbound SR-74 have views a four-lane highway, ornamental landscaping, a	5	Intactness appears to be moderate. The visible encroachment has increased as a	6	Although the widened roadway and sidewalk appears more developed in appearance, the overall unity appears	5.6	-1.4	0	4

View		Visual Quality							Impact			
Key View	Proposed / Existing	General Visual Quality	Vividness		Intactness		Unity		(V+I+U) / 3 = Q	Visual Quality Difference	Positive Impact	Negative Impact
			Overall Vividness	Features	General Intactness	Encroachment	Overall Unity	Elements				
				<p>curvilinear sidewalk, and an equestrian trail to the north of the roadway. The color contrast between the trees, shrubs, and grasses remains vivid and also contrasts to the lighter colored sidewalks and roadway. The existing color contrast between the trees, shrubs, and grasses would remain vivid and also contrasts to the light colored sidewalks and roadway would remain. Additionally, the two proposed retaining walls (26 feet and 67 feet long and both ranging in height from three to five feet) may further increased dominance of hardscape features and increased light reflectivity from the additional concrete (with the resultant radiant heat glare).</p>		<p>result of the widened roadway and curvilinear roadway. Proposed the proposed roadway would contrast with the meandering nature of the equestrian trail. Visible ornamental landscaping would soften this contrast.</p>		<p>moderately high. Although the curvilinear sidewalk further increases the developed appearance of this view, this particular landscape unit allows for a slightly more suburban landscape.</p>				

Visual Quality Evaluation – View From The Road

Project Name: Lower SR-74 Ortega Highway Widening	Evaluator: Kristen Bogue, CEI	Evaluation Scale: 1 – 7
Assessment Unit: Low Density Rural Residential (LU2)	Date: 3/13/2008	1 = Very Low
	Weather: Sunny and Clear	4 = Medium 7 = Very High

View		Visual Quality								Impact		
Key View	Proposed / Existing	General Visual Quality	Vividness		Intactness		Unity		$(V+I+U) / 3 = Q$	Visual Quality Difference	Positive Impact	Negative Impact
			Overall Vividness	Features	General Intactness	Encroachment	Overall Unity	Elements				
2	E	5	5	Travelers on eastbound SR-74 have views to a two-lane highway, meandering sidewalk, and ornamental landscaping. A rural residential dwelling unit is located to the north. The foreground and middleground of Key View 2 afford views to mature ornamental (non-native) landscaping to the north. A private drive extends north off of SR-74. Suburban development is located to the south. Existing mature landscaping screens the majority of views to suburban development. Overhead power lines are visible extending parallel to and to the north of SR-74. Streetscape is visible to the south of SR-74. The streetscape includes meandering sidewalk and ornamental vegetation. Background views include SR-74 and mature ornamental landscaping.	5	Intactness appears to be moderately high as the visible encroachment in this Key View is low to moderate. Mature vegetation screens the majority of views to adjoining residents to the south. Also, residents to the north appear to be set back from SR-74 by approximately 70 feet or more. The mature vegetation and existing topography screen the majority of views from residents to the south. The streetscape to the south buffer the visible encroachment from SR-74 onto residents to the south.	5	Similar to the surrounding visible landscape, this Key View appears rural in nature. However, the suburban land to the south slightly contrasts with the rural residential landscape to the north. Ornamental landscaping to the south creates visual continuity between the northern and southern land uses. The overall unity is this Key View is moderately high.	5.0			
	P Alt.1	4	4	Views to the south of SR-74 remain similar to existing conditions. However, views to the	4	Intactness appears to be moderate. New retaining walls have increased the appearance of	4	Increased hardscape features have increased the developed appearance of this Key View. However, development	4.0	-1.0	0	2

View		Visual Quality								Impact		
Key View	Proposed / Existing	General Visual Quality	Vividness		Intactness		Unity		(V+I+U) / 3 = Q	Visual Quality Difference	Positive Impact	Negative Impact
			Overall Vividness	Features	General Intactness	Encroachment	Overall Unity	Elements				
				north of SR-74 have been altered. SR-74 has been widened to a four-lane road. Two retaining walls are visible throughout the view. Three retaining walls would be visible, which include the following: (1) 160 feet long and ranging from 2 to 16 feet in height; (2) 560 feet long and ranging from 2 to 20 feet in height; and (3) 100 feet in length and ranging from 2 to 10 feet in height.		encroachment from the road onto the hillside to the north. Increased hardscape features are visible throughout this view.		appears similar to the suburban uses to the south of SR-74. Therefore, the overall visible development appears fairly unified through this Key View.				
	P Alt.2	4	4	Same as Alternative 1.	4	Same as Alternative 1.	4	Same as Alternative 1.	4.0	-1.0	0	2
3	E	5	6	Travelers on eastbound SR-74 have views to a two-lane highway, meandering sidewalk, and ornamental landscaping. A private residence is located to the north. Mature ornamental (non-native) landscaping is visible to the north. Private drives extend north off of SR-74. Overhead power lines are visible extending parallel to SR-74. Streetscape is visible to the south of SR-74. The streetscape includes meandering sidewalk and ornamental vegetation. Background views to hillside grasses are visible.	5	Intactness appears to be moderately high as the visible encroachment in this Key View is low to moderate. Mature vegetation screens the majority of views to adjoining residents to the north. Mature vegetation and existing topography completely screen views from residents to the south. The meandering sidewalk and streetscape to the south buffer visible encroachment from SR-74 onto residents. Also, existing residents to the north are currently set back from SR-74, further reducing visible encroachment.	5	Overall unity is moderately high. Similar to the visible development to the north, this Key View appears rural in nature, similar to the surrounding visible landscape. Although low-density residential uses are located to the south of SR-74, these land uses are completely screened by topography and mature ornamental landscaping. This particular landscape unit provides a transition from the urban low density residential landscape to the west with the rural/agricultural landscape to the east.	5.3			
	P	5	5	SR-74 would be widened to four lanes. Existing walls to the south	4	The new soundwalls located to the south of SR-74 would	5	Overall, the widened roadway would not significantly change the landscape to	4.7	-0.6	0	1

View		Visual Quality								Impact		
Key View	Proposed / Existing	General Visual Quality	Vividness		Intactness		Unity		(V+I+U) / 3 = Q	Visual Quality Difference	Positive Impact	Negative Impact
			Overall Vividness	Features	General Intactness	Encroachment	Overall Unity	Elements				
	Alt.1			have been replaced with one soundwall (747 feet in length and up to 16 feet in height). Proposed architectural treatments to the soundwalls may vary (i.e., glass, SoundFighter, etc.). Additionally, background views to one retaining wall are afforded (280 feet long and ranging from 2 to 14 feet in height).		increase the appearance of the roadway encroaching upon adjoining residents. The level of encroachment would vary between proposed architectural treatments. The hardscape appearance of the SoundFighter wall would be greater than the proposed glass soundwall.		the north. Although the new soundwall would increase encroaching features, the ornamental landscaping that would remain in the vicinity of the soundwall would reduce the encroaching features and allow for the rural appearance of this Key View to remain.				
	P Alt.2	5	5	Same as Alternative 1.	4	Same as Alternative 1.	5	Same as Alternative 1.	4.7	-0.6	0	1
4	E	6	5	Travelers on westbound SR-74 have foreground and middleground views to a two-lane highway, ornamental landscaping, and sloping vegetation. Additionally, streetscape (sidewalk and associated landscaping) is visible to the south of SR-74. Background views to mature ornamental landscaping is also visible.	6	Intactness appears to be moderately high. The foreground, middleground, and background of this Key View is afforded by mature ornamental landscaping, which screens views to adjoining residents. Although the streetscape to the south of SR-74 increases the developed appearance, this Key View remains rural in nature.	6	Overall unity is moderately high. This Key View appears rural in nature. Although low-density residential uses are located to the north and south of SR-74, these land uses are screened by topography and mature ornamental landscaping. This particular landscape unit provides a transition from the urban low density residential landscape to the west with the rural/agricultural landscape to the east.	5.7			
	P Alt.1	4	4	SR-74 would be widened to four lanes. Existing walls to the south have been replaced with soundwalls (1,228 feet in length and up to 16 feet in height). Proposed architectural treatments to the soundwalls may vary (i.e., glass, SoundFighter, etc.). Additionally, foreground views to one retaining wall are visible (280	4	The new soundwalls located to the south of SR-74 would increase the appearance of the roadway encroaching upon adjoining residents. The level of encroachment would vary between proposed architectural treatments. The hardscape appearance of the SoundFighter wall would be greater than the	4	Overall, the widened roadway would increase the developed appearance of this Key View. The landscape would change from a rural landscape to a more suburban landscape. The ornamental landscaping that would remain in the vicinity of the soundwall would slightly reduce the appearance of encroaching features.	4.0	-1.7	0	5

View		Visual Quality								Impact		
Key View	Proposed / Existing	General Visual Quality	Vividness		Intactness		Unity		(V+I+U) / 3 = Q	Visual Quality Difference	Positive Impact	Negative Impact
			Overall Vividness	Features	General Intactness	Encroachment	Overall Unity	Elements				
				feet long and ranging from 2 to 14 feet in height).		proposed glass soundwall.						
	P Alt.2	4	4	Same as Alternative 1.	4	Same as Alternative 1.	4	Same as Alternative 1.	4.0	-1.7	0	5

Visual Quality Evaluation – View From The Road

Project Name: Lower SR-74 Ortega Highway Widening	Evaluator: Kristen Bogue, CEI	Evaluation Scale: 1 – 7
Assessment Unit: Rural/Agricultural Landscape (LU3)	Date: 3/13/2008	1 = Very Low
	Weather: Sunny and Clear	4 = Medium 7 = Very High

View		Visual Quality							Impact			
Key View	Proposed / Existing	General Visual Quality	Vividness		Intactness		Unity		(V+I+U) / 3 = Q	Visual Quality Difference	Positive Impact	Negative Impact
			Overall Vividness	Features	General Intactness	Encroachment	Overall Unity	Elements				
5	E	5	5	Travelers on westbound SR-74 have views to a two-lane highway, mature ornamental landscaping, and sloping vegetation. Middleground views to overhead power lines are present. The existing color and textural contrast between vegetation, soil, and the roadway, create a moderately high rating for vividness.	4	Intactness appears to be moderate. The horizontal line pattern associated with the overhead power poles creates a moderate sense of encroachment for this Key View.	6	Overall unity is moderately high. This Key View appears rural in nature. Although low-density residential uses are located to the north and south of SR-74, mature ornamental landscaping screens these land uses. The color, texture, and massing of the mature ornamental landscaping work to unit this Key View.	5.0			
	P Alt.1	4	4	SR-74 would be widened to four lanes. New sidewalk would be introduced to the south of SR-74. Ornamental landscaping to the south of SR-74 would be removed to allow for the roadway. One retaining wall would be visible in the foreground and middleground views. The retaining wall is 960 feet long (ranging from 8 to 24 feet in height).	3	The widened roadway, removed landscaping, and new retaining wall would increase the appearance of the roadway encroaching onto rural land uses.	4	Overall, the widened roadway would increase the developed appearance of this Key View. The landscape would change from a rural landscape to a more suburban landscape. The removal of ornamental landscaping would further reduce the rural appearance of the roadway and surrounding land uses.	3.7	-1.3	0	4
	P Alt.2	4	4	Same as Alternative 1.	3	Same as Alternative 1.	4	Same as Alternative 1.	3.7	-1.3	0	4